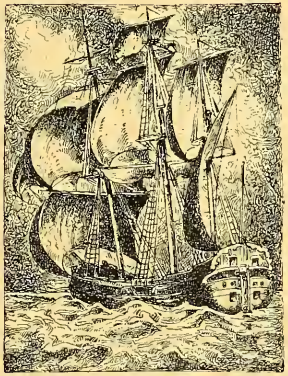
NAVIGARE
NECESSE

SHIPBUILDING

FROM

ITS BEGINNINGS



SHIPBUILDING FROM ITS BEGINNINGS

BY

E. VAN KONIJNENBURG, C. E.,

ENGINEER OF THE RIJKSWATERSTAAT OF THE NETHERLANDS

1895-1905

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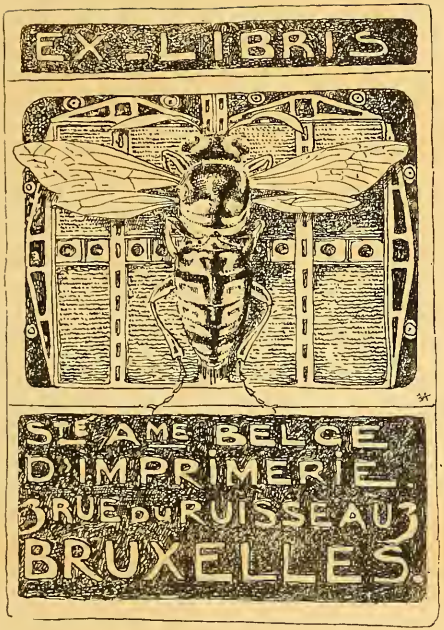
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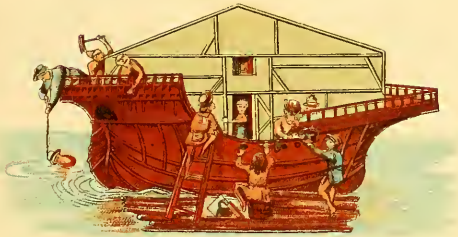
Ark van Noach.
Noah's Ark. Arche. Noah
Arche de Noé.

Voorstelling van Liranus (Van Yk).
Nach Liranus. — According to Liranus.
D'après Liranus (Van Yk).

Teekening (xvii^e eeuw)
Zeichnung (17. Jahrhundert). — Drawing of the 7th century
Dessin du xvii^e siècle.

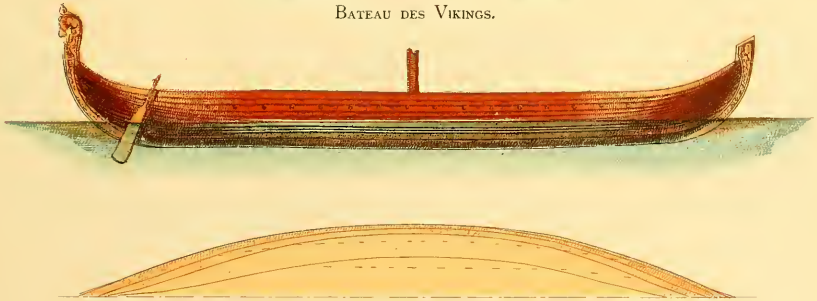


Neurenberger Kroniek
Nürnberger Chronik. — Chronicle of Nuremberg.
Chronique de Nuremberg.
Fig. 1.

Volgens Wilhelm Goeree
Nach Wilhelm Goeree. — According to Wilhelm Goeree.
D'après Guillaume Goeree.

Volgens Van Yk.
Nach Van Yk. — According to Van Yk.
D'après Van Yk.

Vikinger schip.
Wikingerschiff. Viking schip.
Bateau des Vikings.



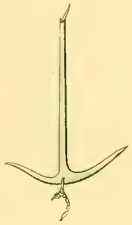


Fig. 2.

1200
Fig. 3

1300
Fig. 4

1400 Fig. 5

1500

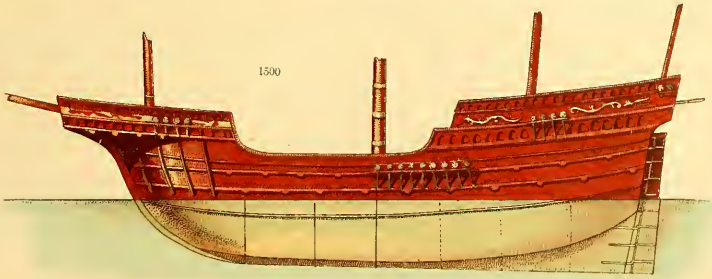
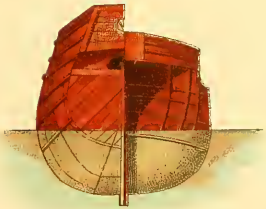
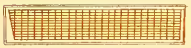


Fig. 6



Amsterdamsche voeten

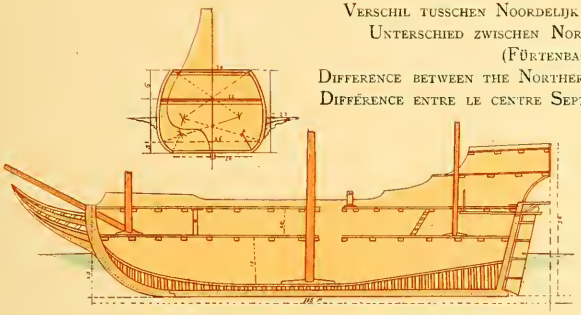
Amsterdamer Fuss



Amsterdam feet

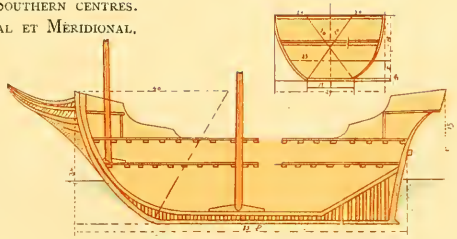
Pieds d'Amsterdam

Verschil tusschen Noordelijk en Zuidelijk centrum.
Unterschied zwischen Nord- und Südzentrum
(Fürtenbach)
Difference between the Northern and Southern centres.
Différence entre le centre Septentrional et Méridional.



Noordzee (Holland)
North Sea

Nordsee (Holland)
Mer du Nord



Middellandsche Zee
Mittelmeer

Mediterranean Sea
Mer Méditerranée

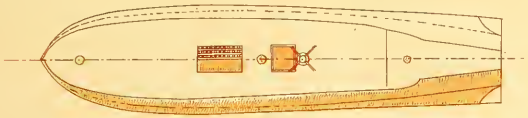
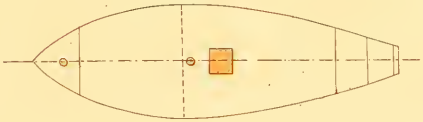


Fig. 7



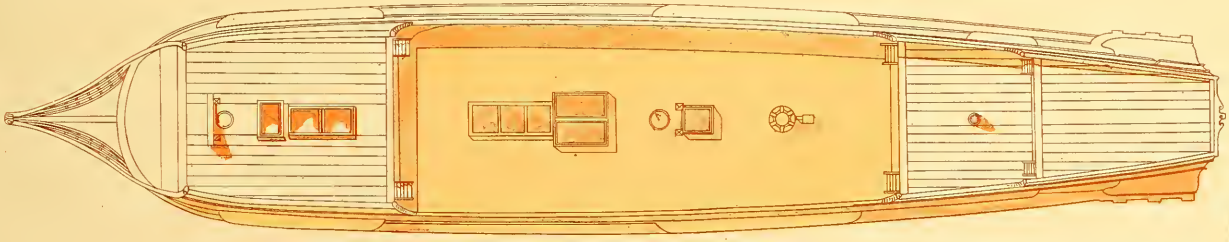


Fig. 8

Platte grond
Plan Ebene
Plan

Amsterdamsche voeten
van 11 duim

Pinasschip
Pinasse 1625 Pinnace
Pinasse

1625

PINASSCHIP

PINASSE

Amsterd. voeten

PINNACE

PINASSE

Fig. 8

PINASSCHIP

PINASSE 1678 PINNACE

PINASSE

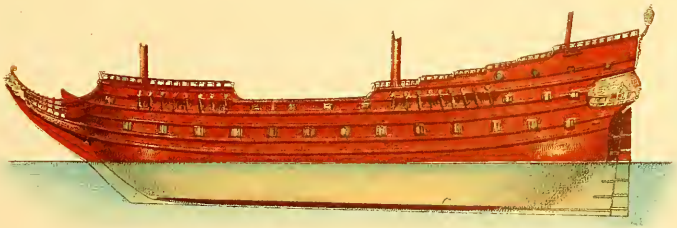
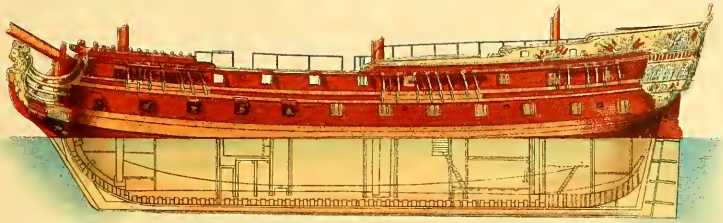


Fig. 9

Schip van oorlog — 50 kanonnen
1757

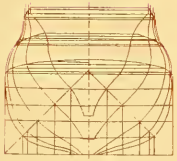


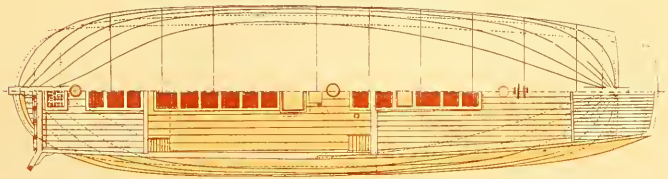
Kriegsschiff
50 kanonen

Man of war
50 guns

Navire de guerre
50 canons

Amsterdamsche voeten





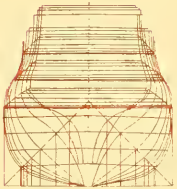
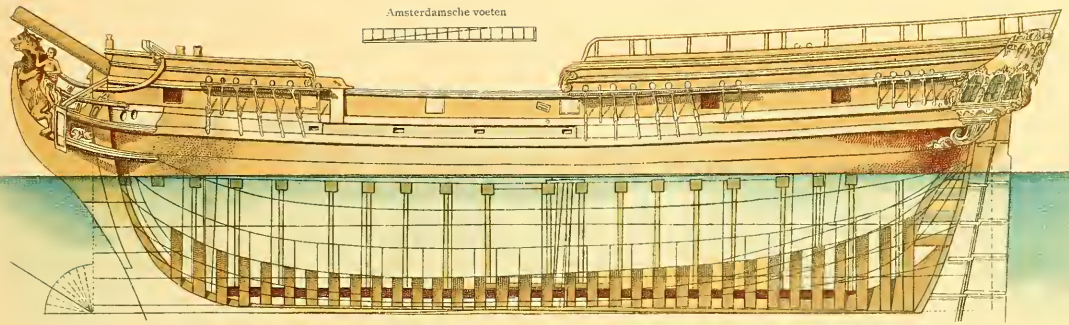


Fig 10



OOST-INDISCH COMPAGNIE SCHIP | SCHIFF DER OSTINDISCHEN KOMPAGNIE | 1750 | EAST INDIA COMPANY'S SHIP | NAVIRE DE LA COMPAGNIE DES INDES

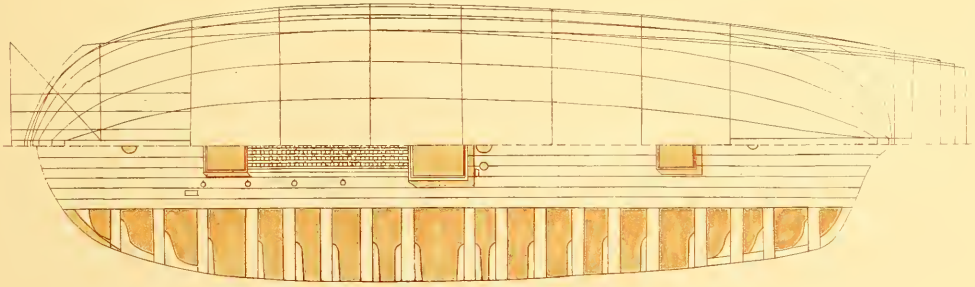


Fig. 11

O. I. Compagnie schip
Schiff der Ostindischen Kompagnie 1750 East India Company's ship
Navire de la Compagnie des Indes

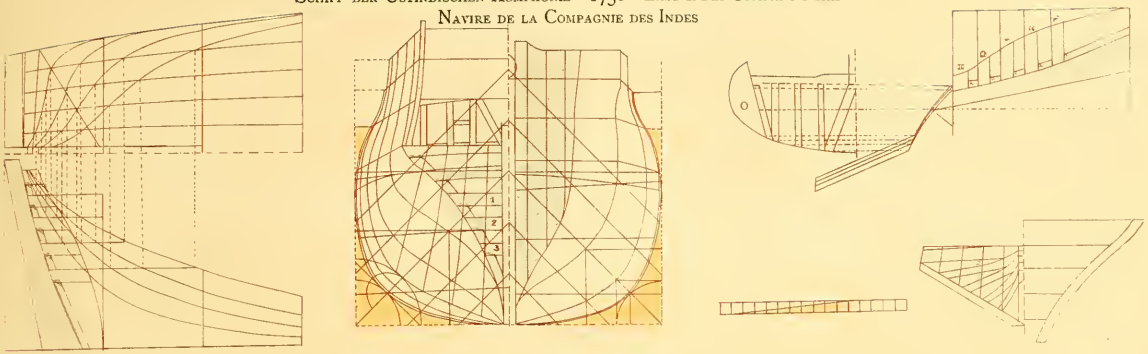
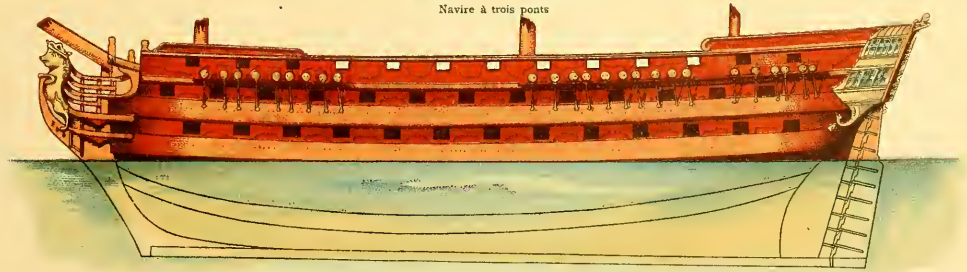


Fig. 11

Schip van oorlog
Kriegsschiff Man of war
Navire de guerre

Driedekker
Dreidecker Three decker
Navire à trois ponts



1770

Fig. 12

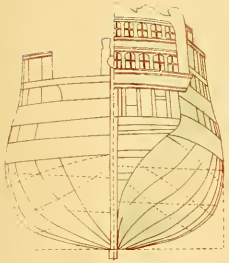
1770

Schip van oorlog

Kriegsschiff

Man of war

Navire de guerre



Driedekker

Dreidecker Three decker

Navire à trois ponts

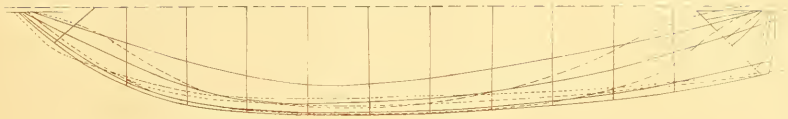


Fig. 12

Verschil in grootspanten

Unterschiede in den Hauptspanten

Differences at the main frame

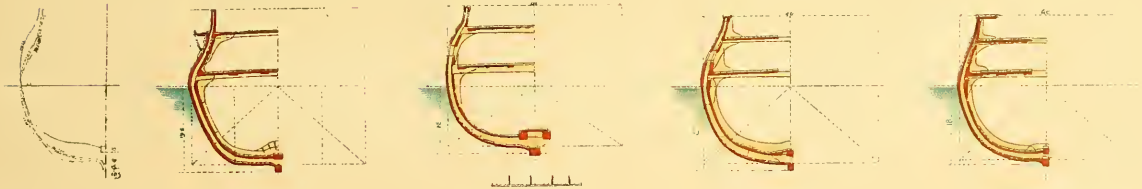
Différences au maître-couple

Frankrijk-Frankreich

Holland-Hollande

Engeland-England

Denemarken-Dänemark



France

Amsterdamsche voeten

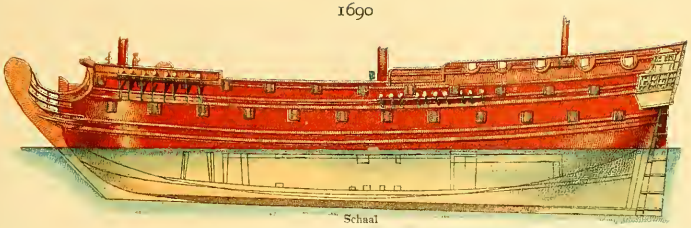
Angleterre

Denmark-Danemark

1750

Fig. 13

1690



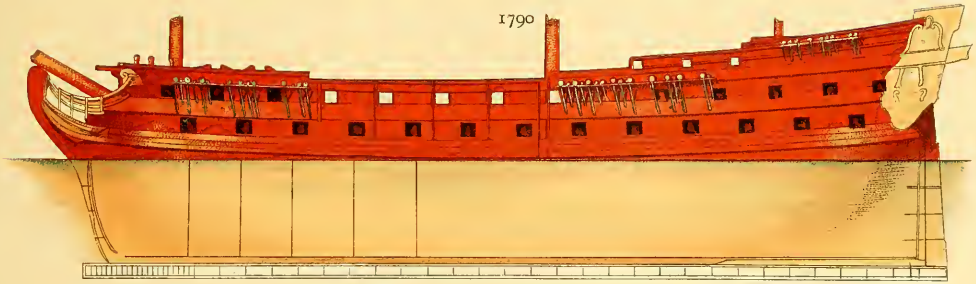
Schaal
Massstab 1 : 300 Scale
Echelle

SCHIP VAN OORLOG
ENGELAND
NAVIRE DE GUERRE
ANGLETERRE

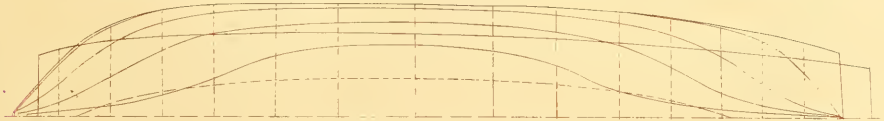
KRIEGSSCHIFF
ENGLAND
MAN OF WAR

Fig. 14

1790



SCHIP VAN OORLOG NAVIRE DE GUERRE KRIEGSSCHIFF MAN OF WAR

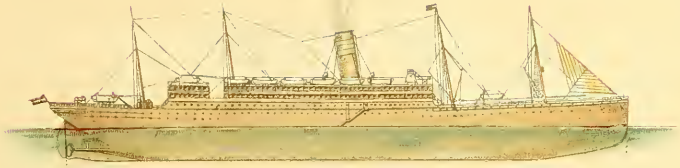


Frankrijk France Frankreich

Fig. 15

1905

Fig. 16



SS. : Nieuw Amsterdam

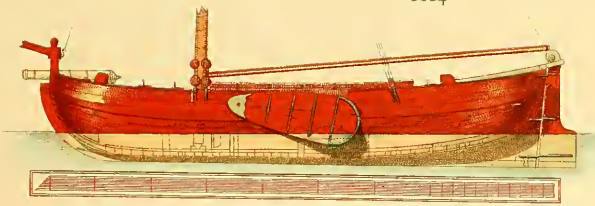
183 M

1500

1750

Paquebot « Nieuw Amsterdam » Postschiff

1814



Amsterdamsche voeten

Kustbewaarder met 12 ponder

Küstenwachtschiff mit 12 kanonen

Coast guard carrying 12 pdrs

Garde-cote avec pieces de 12

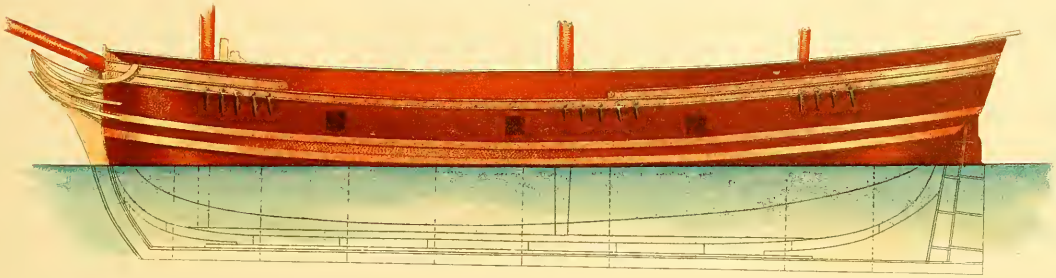
Fig. 17

FREGAT

FREGATTE FRIGATE

FRÉGATE

Schaal
Massstab 1 : 175 Scale
Echelle

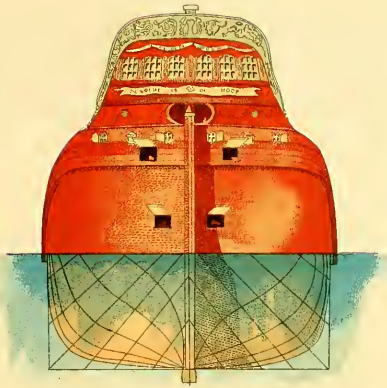


KOOPVARDIJSCHIP
KAUFFAHRTEISCHIFF 1800 MERCHANT SHIP
NAVIRE MARCHAND

Fig. 18

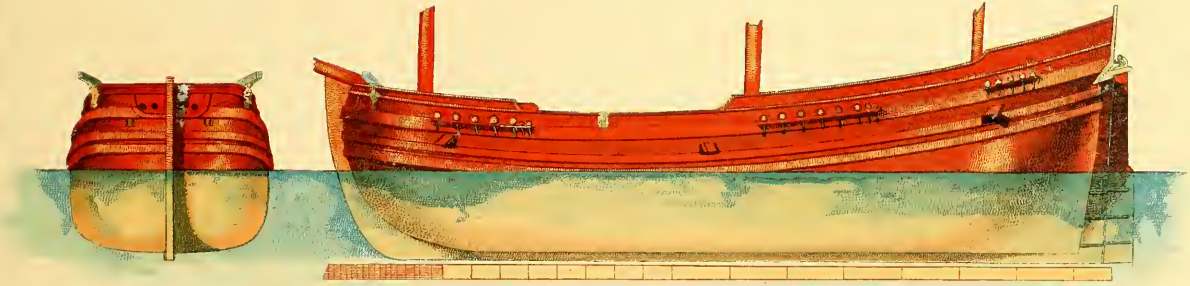
Fig. 19

Achterschip
Schiffshinterteil — Stern
Poupe

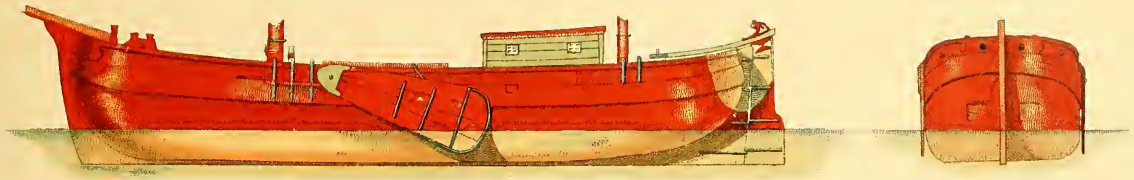


Voorschip
Schiffsvorderteil — Bow
Proue

FLUIT
FLUTE 1803 FLÛTE
FLÖTE



Amsterd. voeten



Galjoot — Galliot — Galiot — Galiote

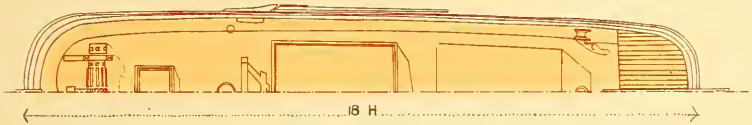


Fig. 20

Huker — Hoeker — Howker
1830
Hourque

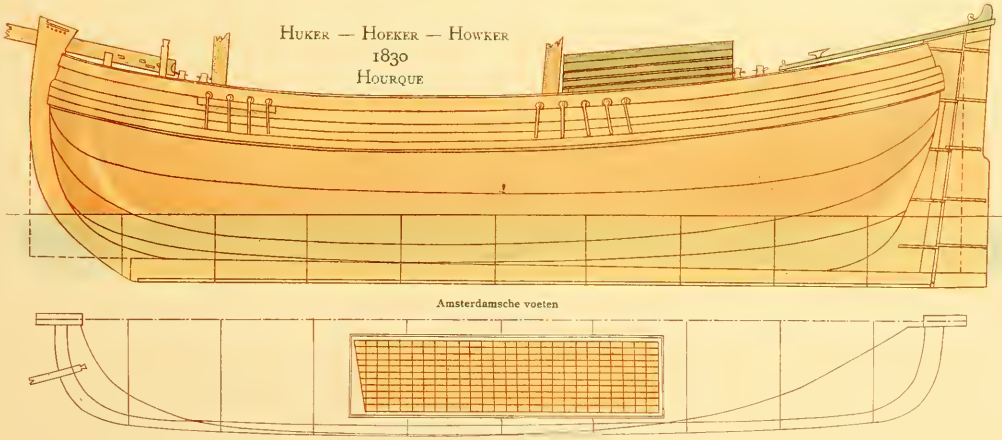
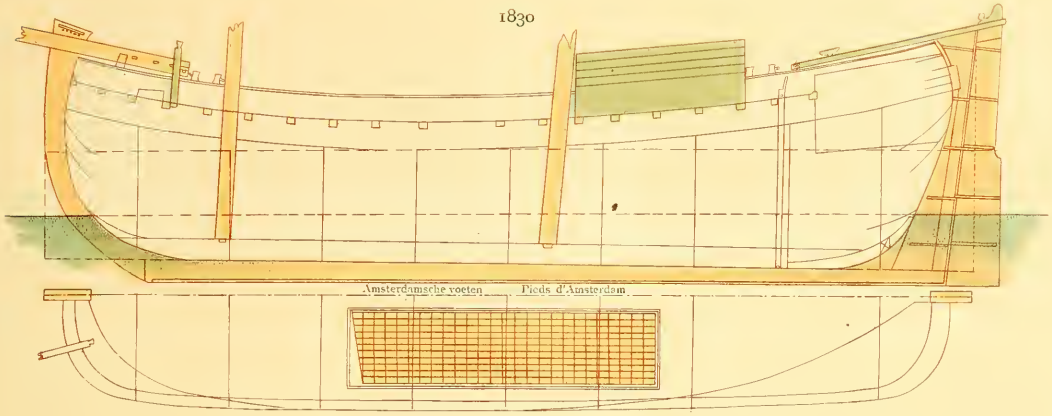
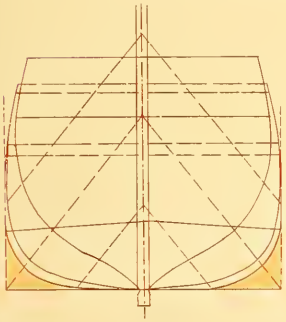


Fig. 21

1830

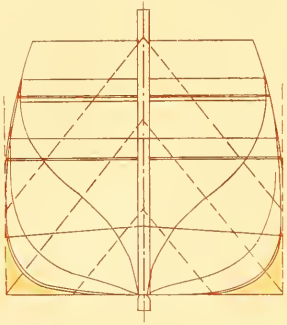


HOEKER — HUKER — HOWKER — HOURQUE



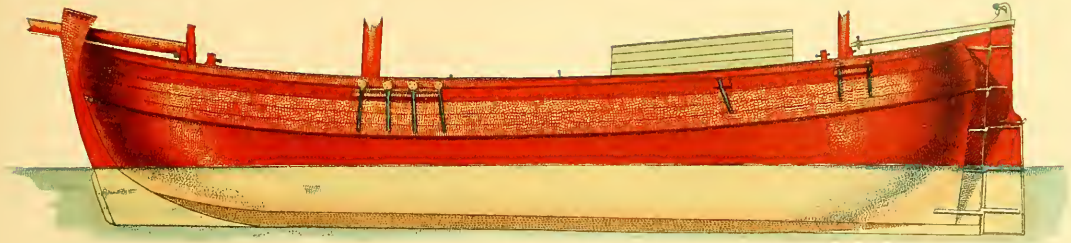
Voorschip
Schiffsvorderteil — Bow
Proue

Amsterdamsche voeten

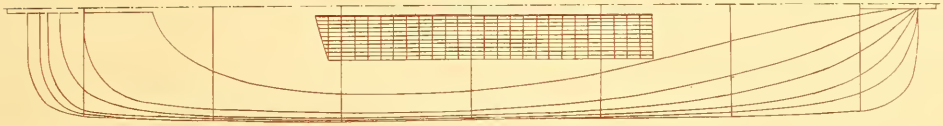


Achterschip
Schiffshinterteil — Stern
Poupe

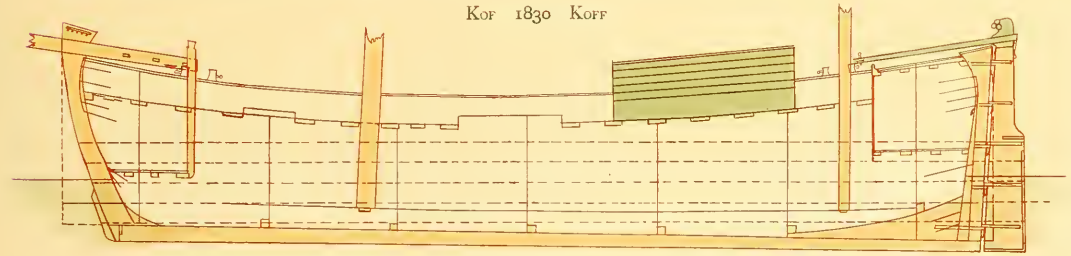
Fig. 21



Amsterdamsche voeten



KOF 1830 KOFF



Amsterdamsche voeten

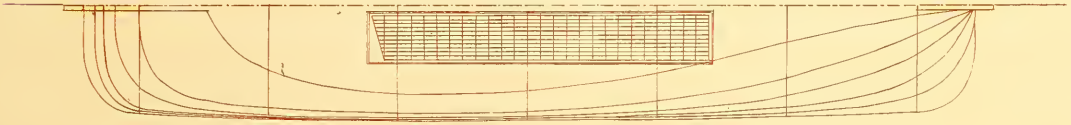


Fig. 22

Kof 1830 Koff

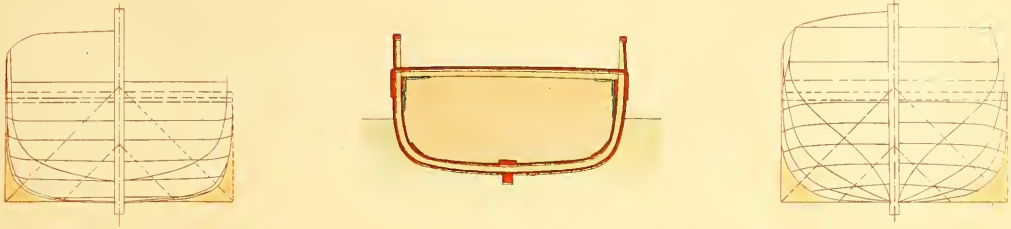
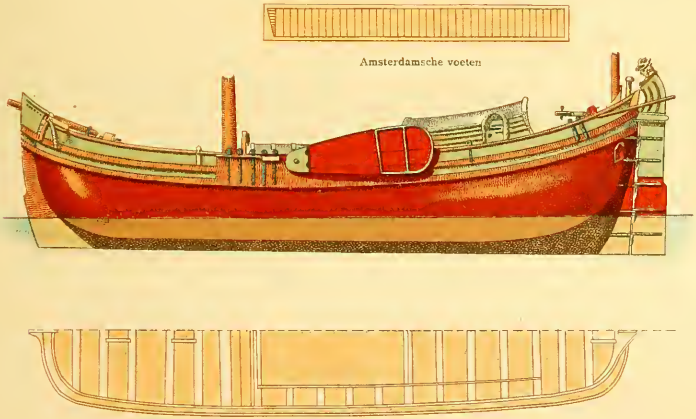


Fig. 22



Smak 1777 Smack
Semaque

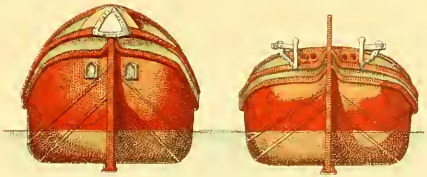


Fig. 23

Hoy. Kaag. Kag. Cague.

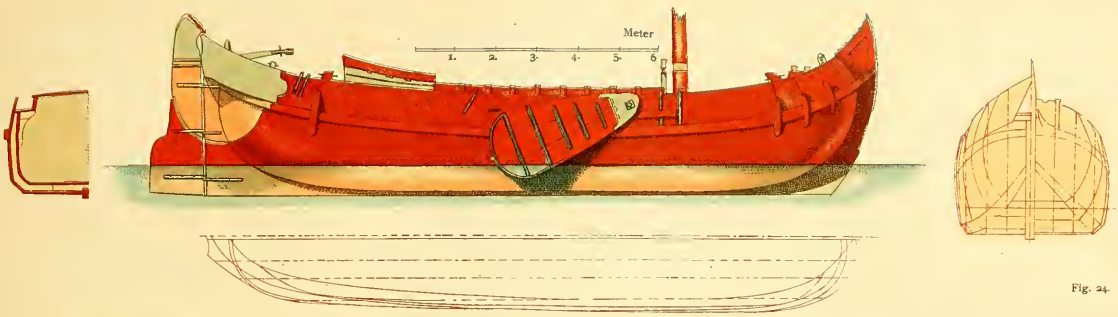
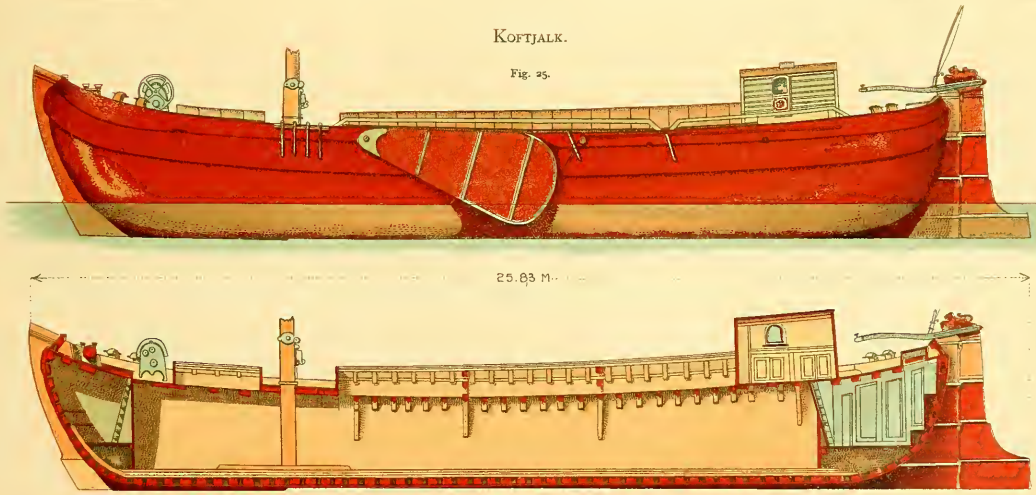


Fig. 24.

Koftjalk.

Fig. 25.



Koftjalk.

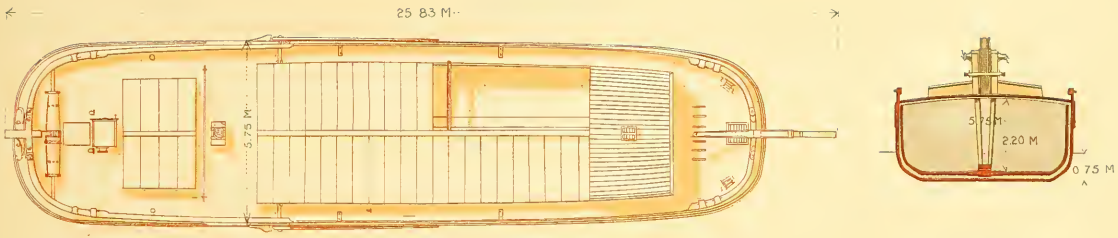
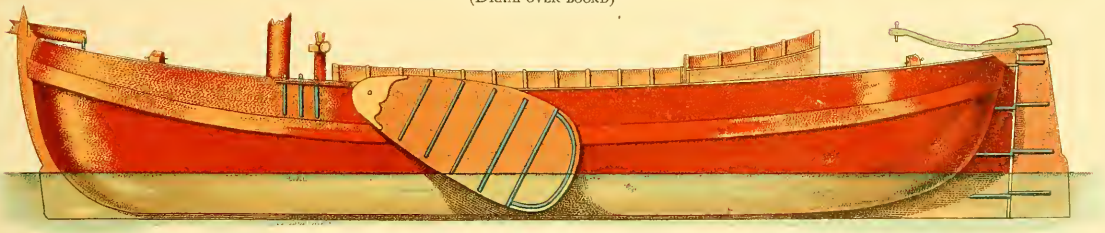


Fig. 25.

Tjalk.
(Draai-over-boord)



Tjalk mit Dreh über Bord. Hoy, with tiller swinging over the gunwale. Tialque avec « draai-over-boord ».

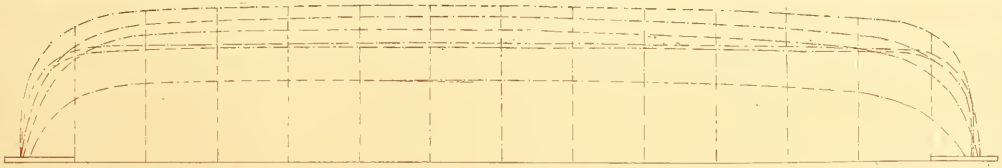
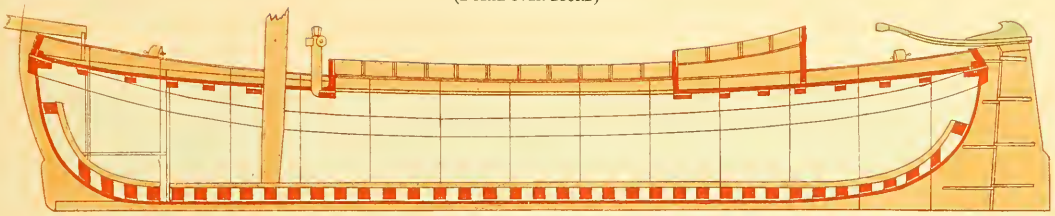


Fig. 26.

Tjalk.
(Draai-over-boord)



Tjalk mit Dreh über Bord. | Hoy, with tiller swinging over the gunwale. | Tialque avec « draai-over-boord ».

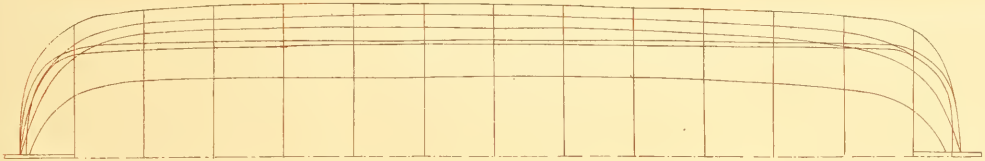
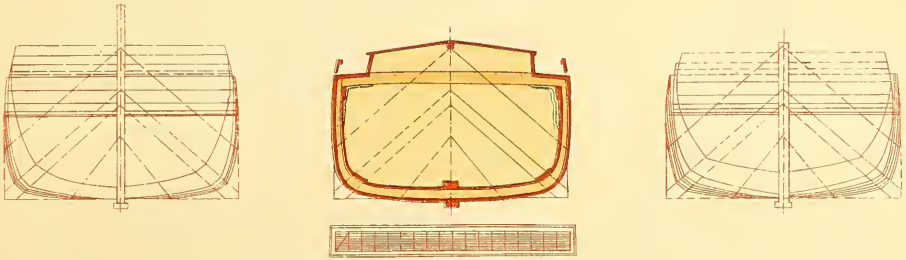


Fig. 26.



Amsterdamsche voeten van 11 duim.

Zuid-Hollandsche Gaffeltjalk.
Sud-Holländische Gaffeltjalk. Gaffeltjalk of south Holland.
Gaffeltjalk de la Hollande méridionale.

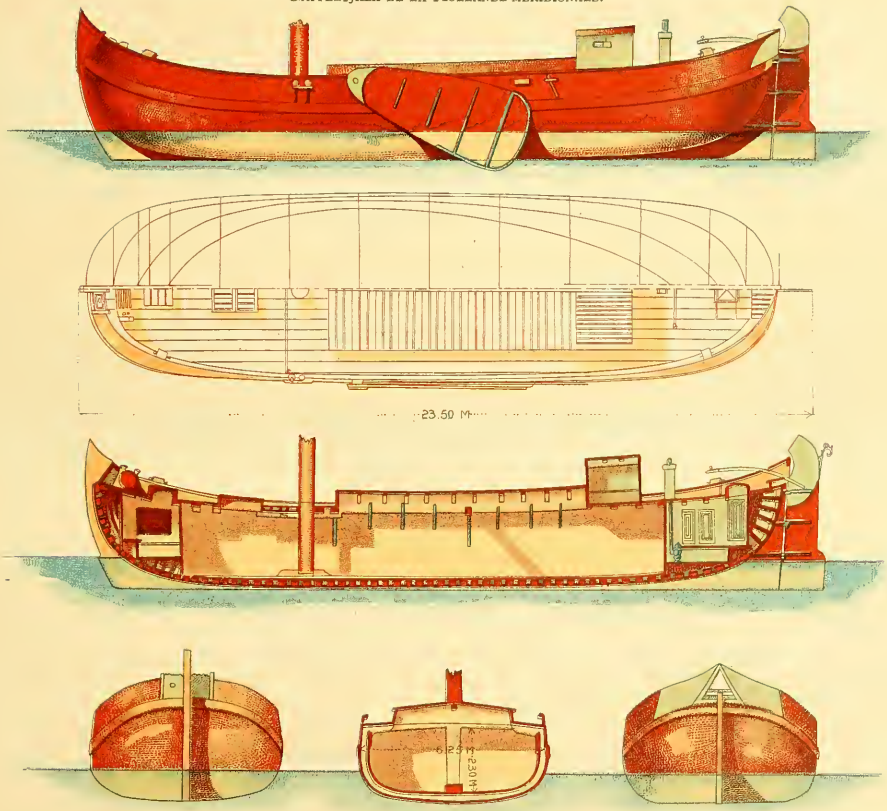
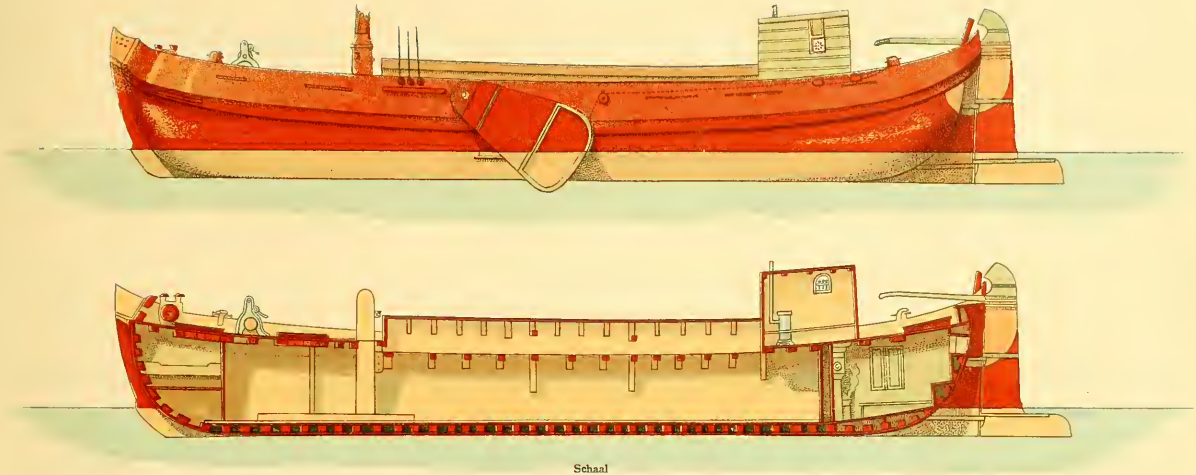


Fig. 27.

« Statietjalk. »



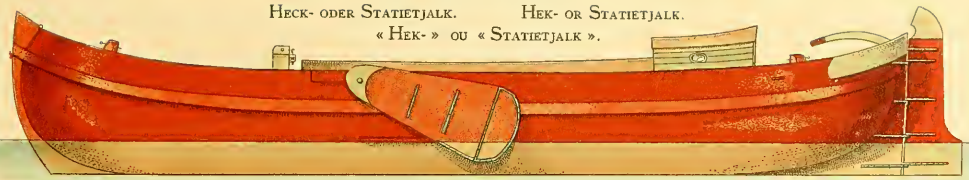
Schaal
Massstab 1 : 100 Scale
Échelle

Fig. 28.

Hek- of Statietjalk.

Heck- oder Statietjalk. Hek- or Statietjalk.

« Hek- » ou « Statietjalk ».



Massstab Schaal 1 : 100 Scale Echelle

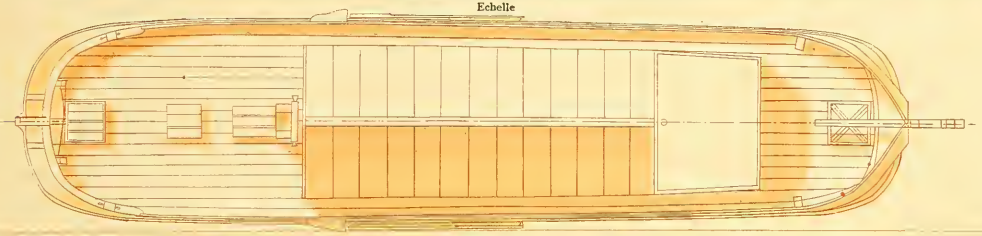


Fig. 29.

« Aaktjalk. »

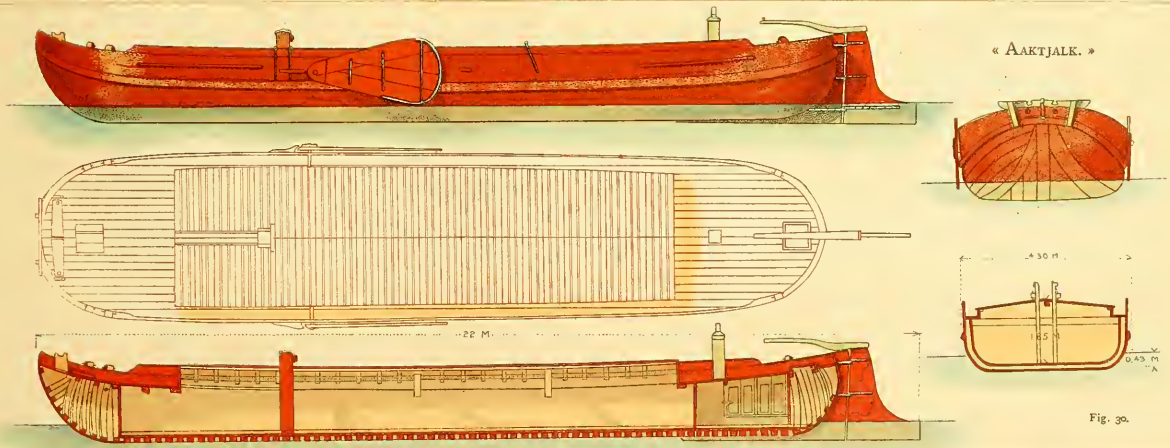


Fig. 30.

Somp of Pegge.
Somp oder Pegge. Somp or Pegge.
« Somp » ou « Pegge ».

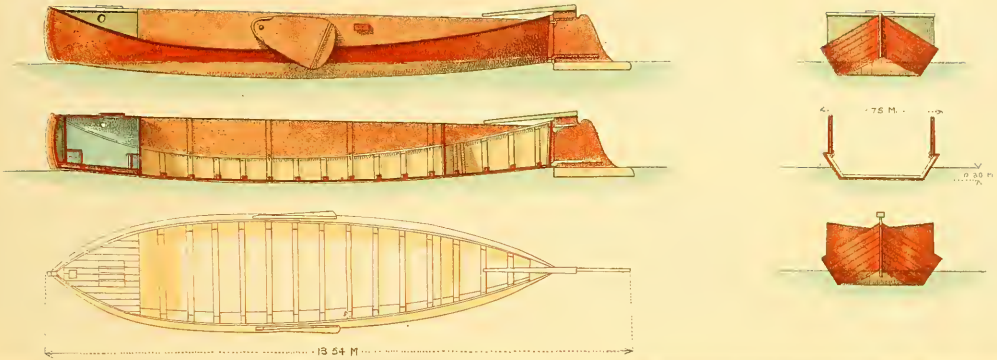


Fig. 31.

« Somp. »

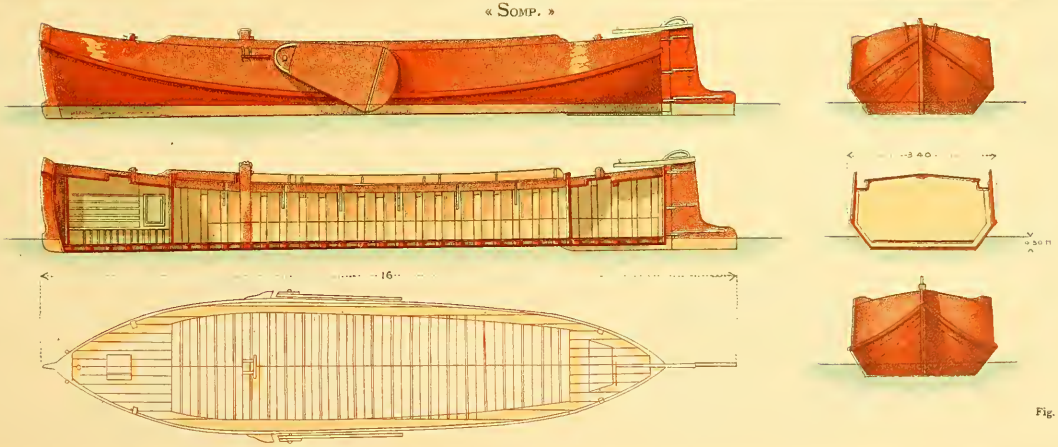


Fig. 32.

« Beurtsomp. » — Rangschiff.

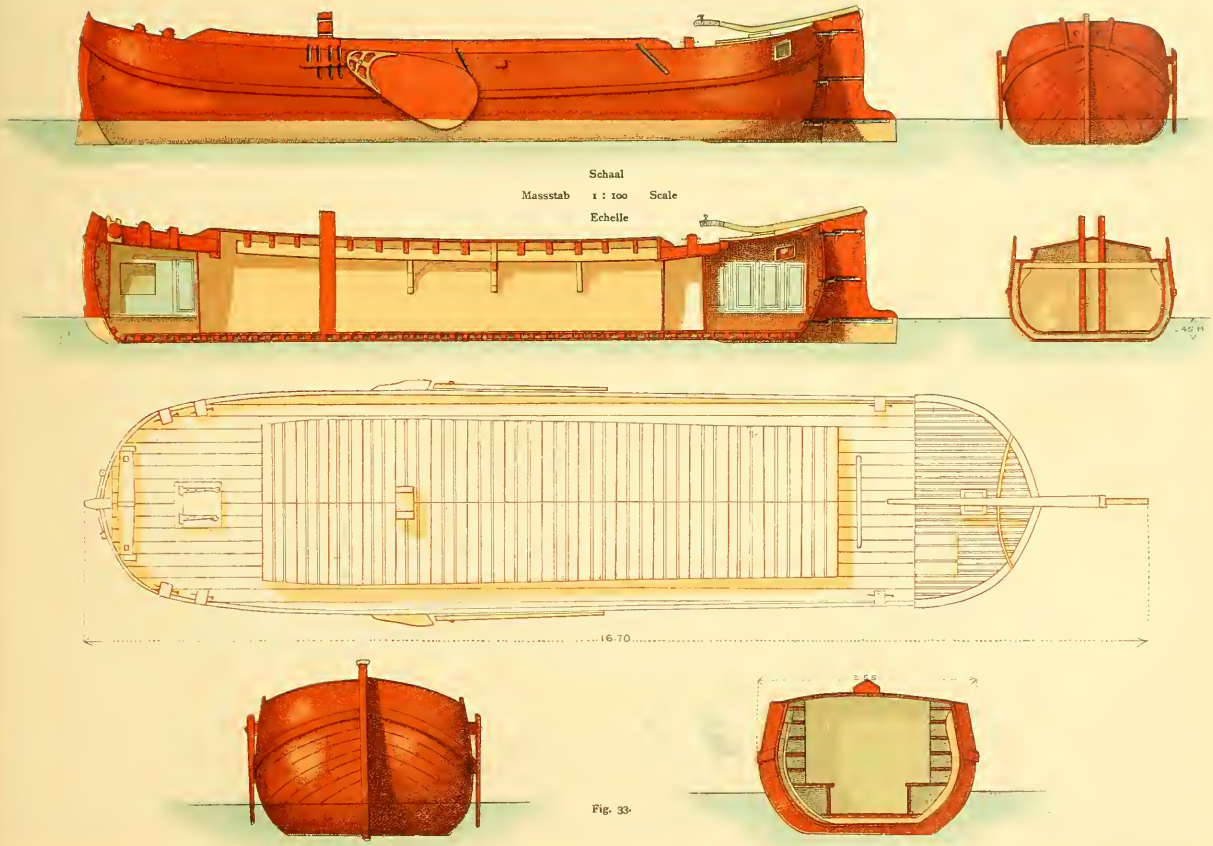


Fig. 33.

« Snijboon. » — Bohne.

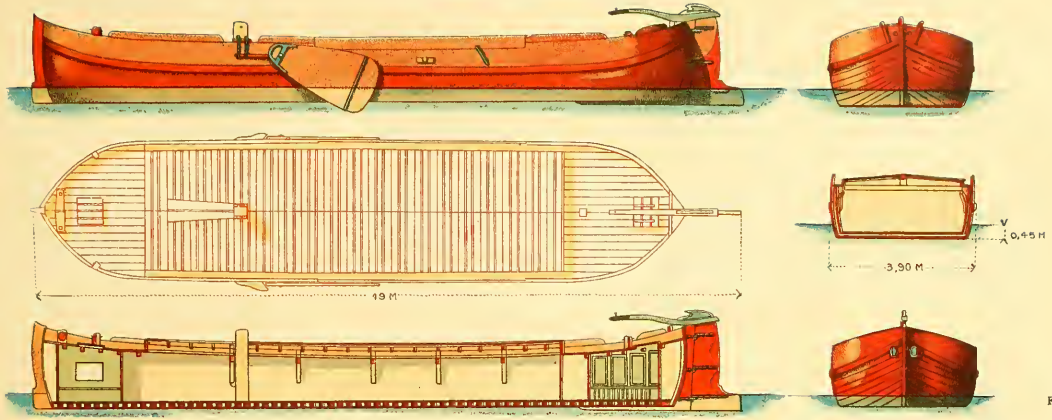


Fig. 34.

Overijsselsche Praam. Prahm von Overijssel. Pram from Overijssel. Prame de l'Overijssel.

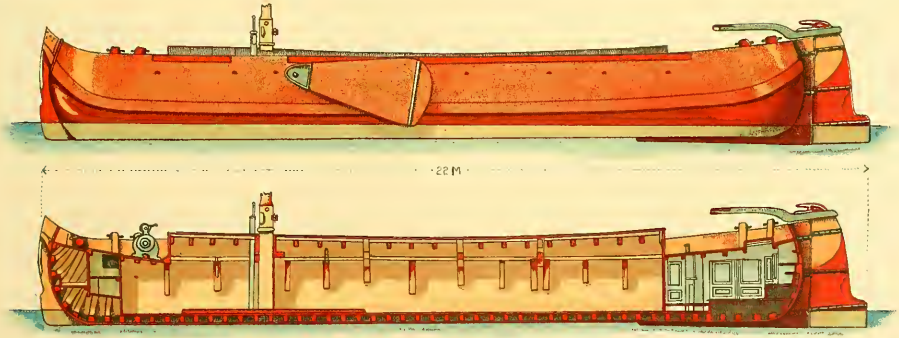


Fig. 35.

Paviljoenpraam. Prahm mit unterbrochenem Deck. Pram with paviljoendek. Prame a pont coupé (Paviljoenpraam).

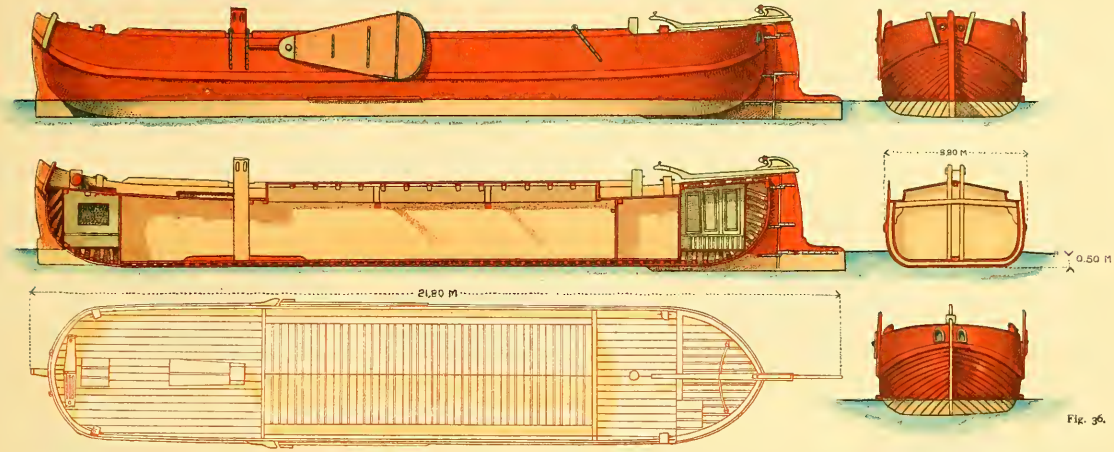


Fig. 36.

« Praamaak. »

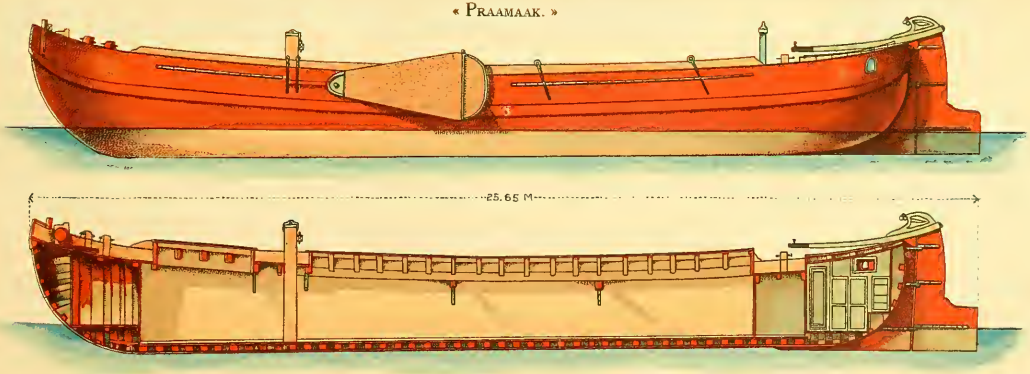


Fig. 37.

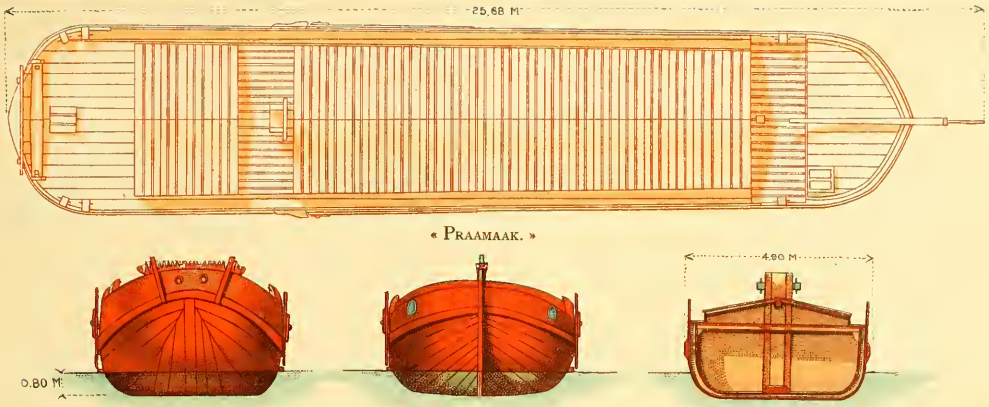


Fig. 38.

Hoogeveensche Praam. Hoogeveensche Prahm. Pram from Hogeveen. Prame d'Hogeveen.

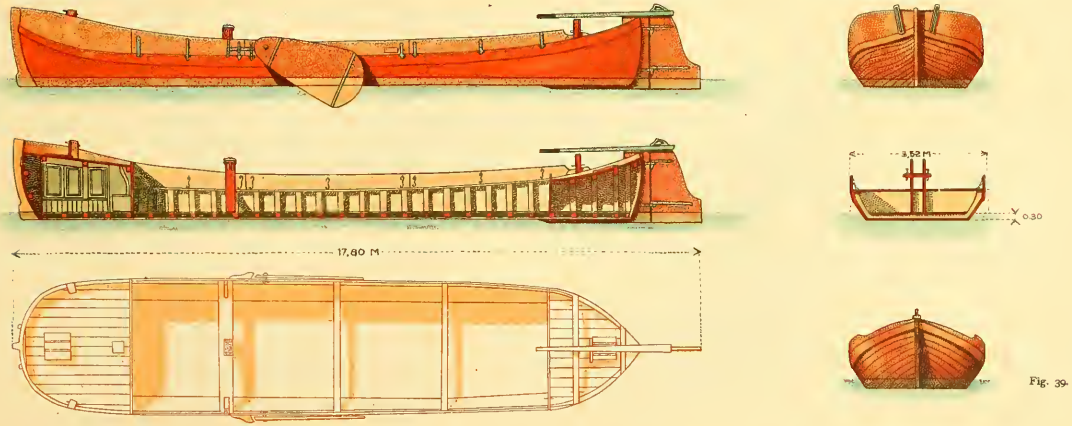


Fig. 39.

Zeeuwsche Poon. Seeländische Poon. Scow from Zeeland. Poon de la Zélande.

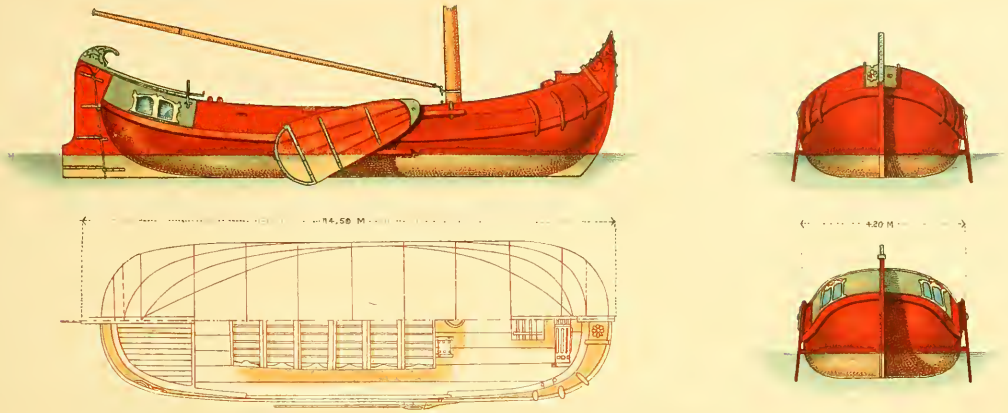


Fig. 40.

« Statie Poon. »

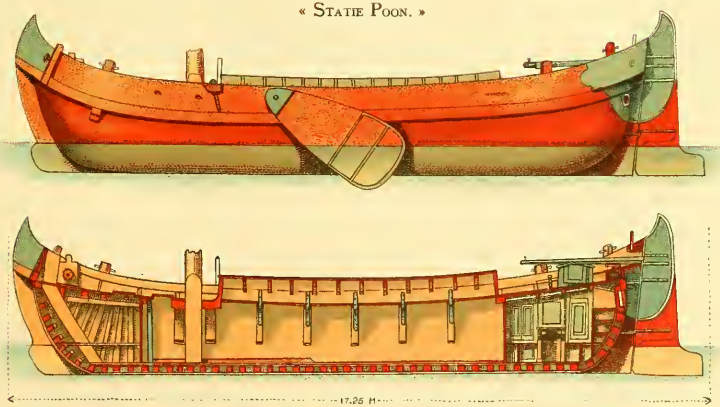
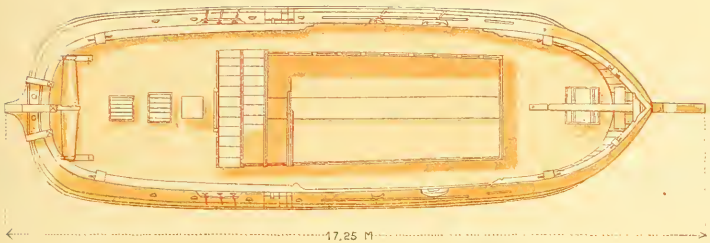


Fig. 41.

« Statie Poon. »



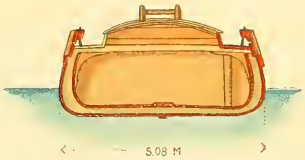


Fig. 41.

« Statie-paviljoen-poon. »

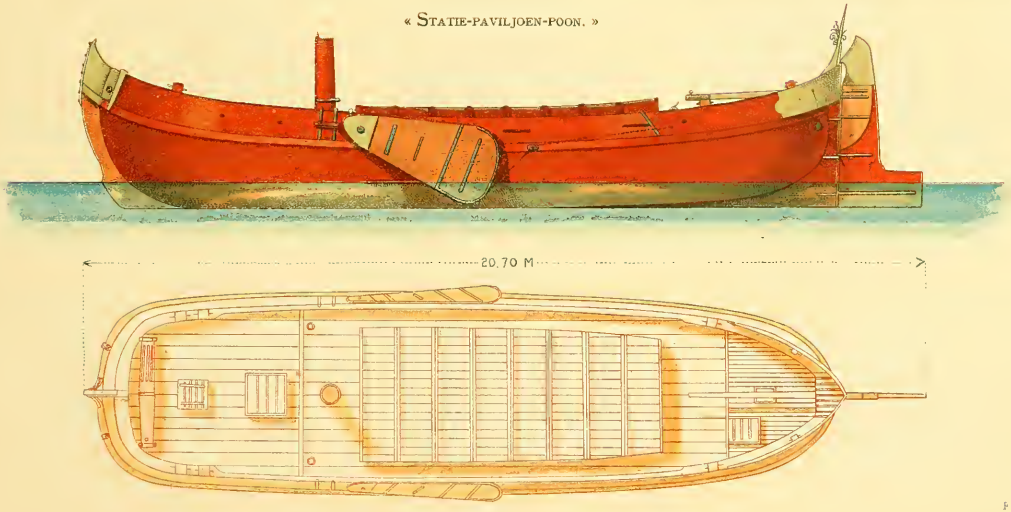


Fig. 42.

« Statie-paviljoen-poon. »

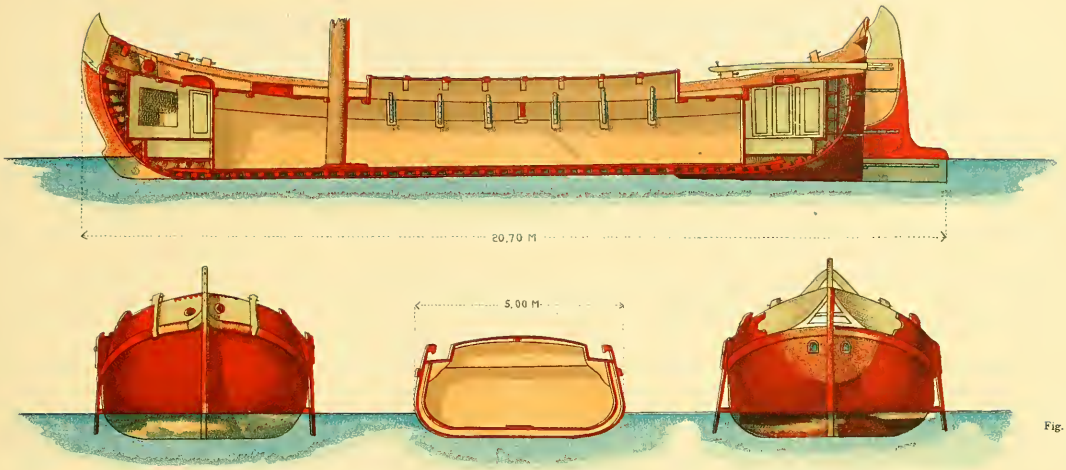
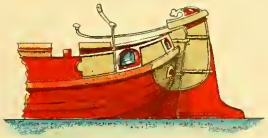


Fig. 42.

« Paviljoen Poon. »



« Statiepoon. »

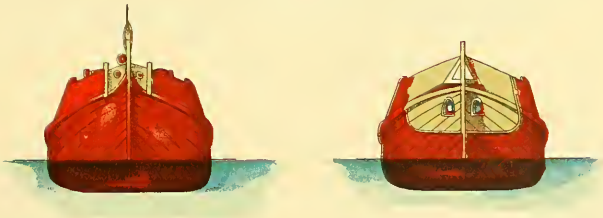
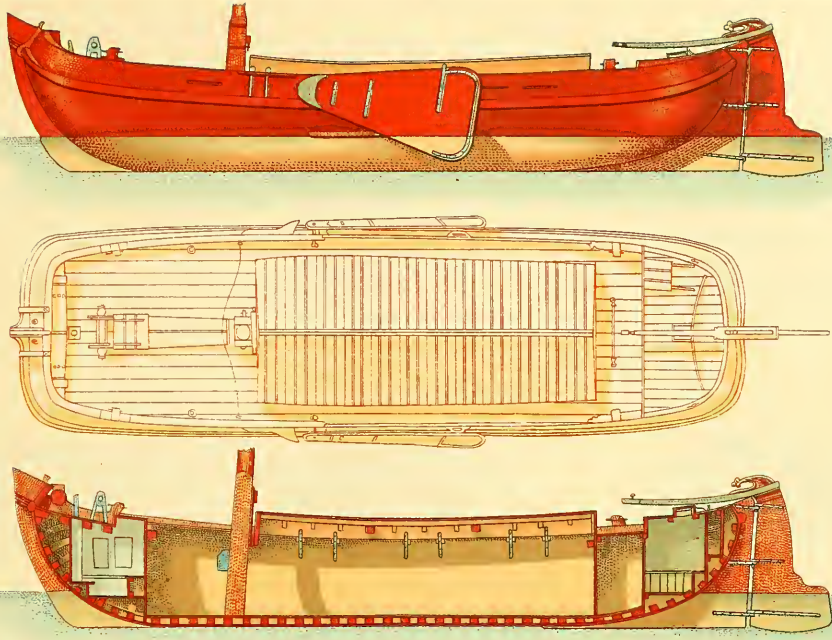


Fig. 43.



Schaal
1 : 100
Massstab

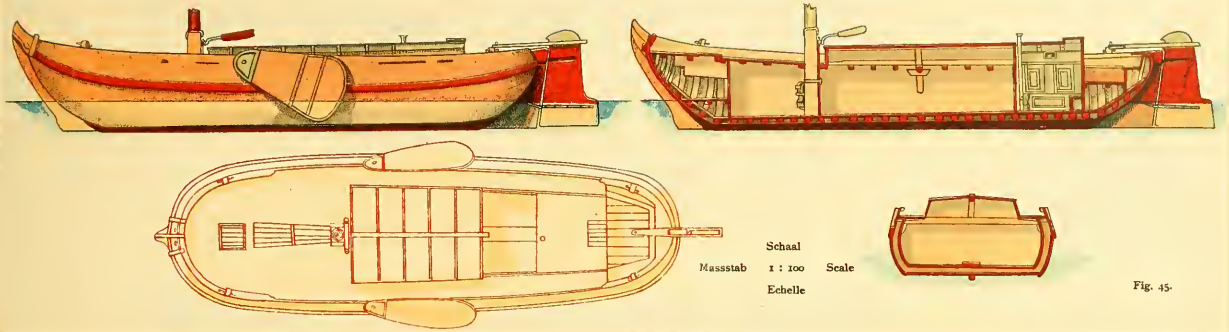
Scale
1 : 100
Echelle

Fig. 44

Noord-Hollandsch Yacht.
North Holland Tender.

Nord-Holländische Yacht.
Yacht de la Hollande Septentrionale.

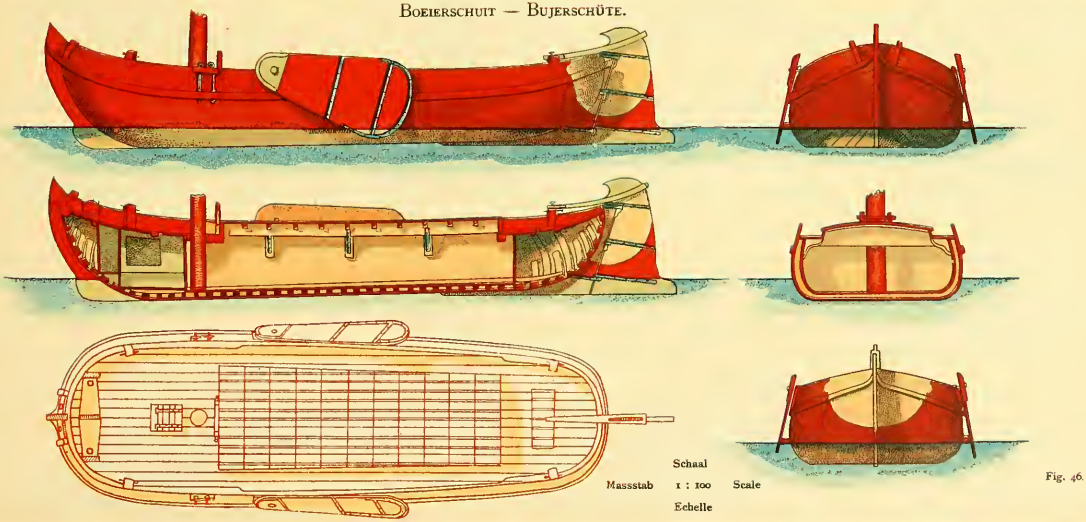
Noord-Hollandsch Yacht. Nord-Holländische Yacht. North Holland Tender. Yacht de la Hollande Septentrionale.



Schaal
Massstab 1 : 100 Scale
Echelle

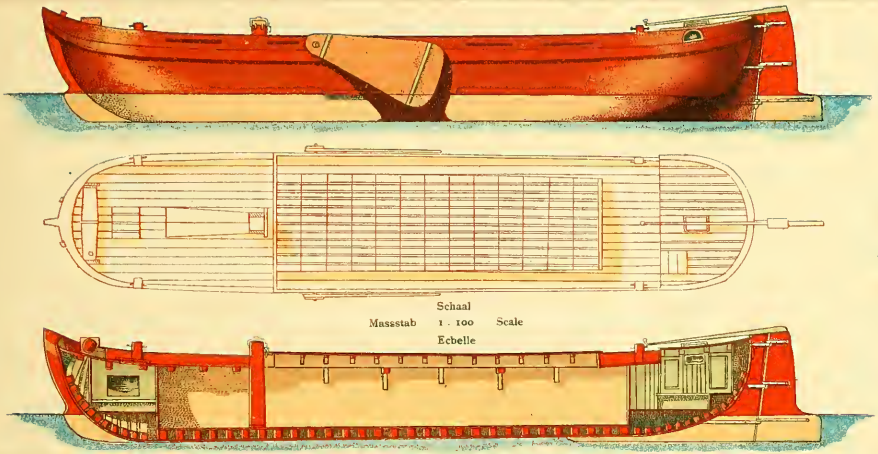
Fig. 45.

Boeierschuit — Bujerschüte.



Schaal
Massstab 1 : 100 Scale
Echelle

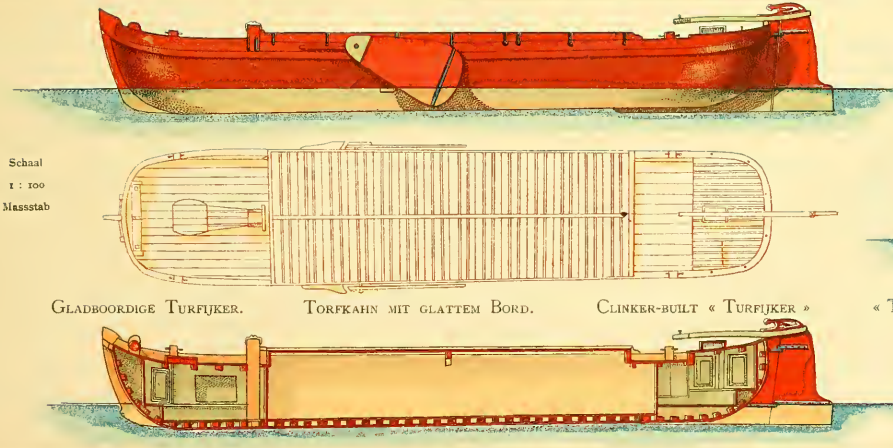
Fig. 46.



Schaal
Massstab 1 : 100 Scale
Echelle

KRAAK. KARAAK. CARACK.

Fig. 47.

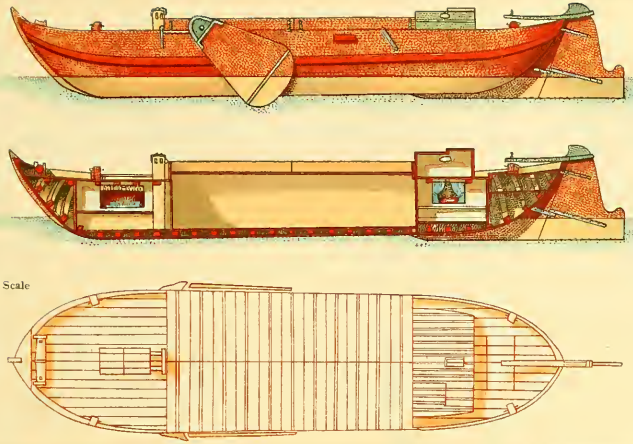


Schaal
1 : 100
Massstab

Scale
1 : 100
Echelle

GLADBOORDIGE TURFIJKER. TORFKAHN MIT GLATTEM BORD. CLINKER-BUILT « TURFIJKER » « TURFIJKER » A BORDAGE LISSE.

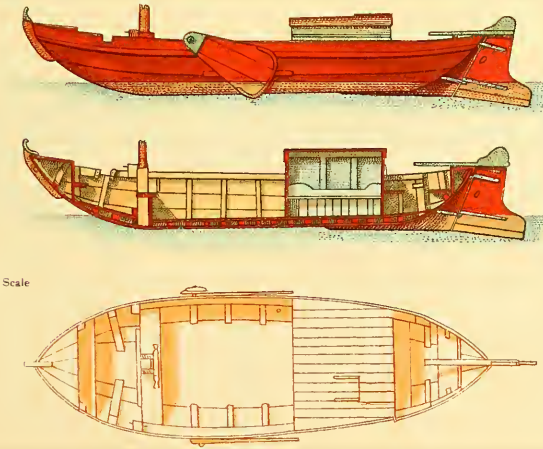
Fig. 48.



Schaal
Massstab 1 : 100 Scale
Echelle

BOEIERAAK. BUJERAAK.

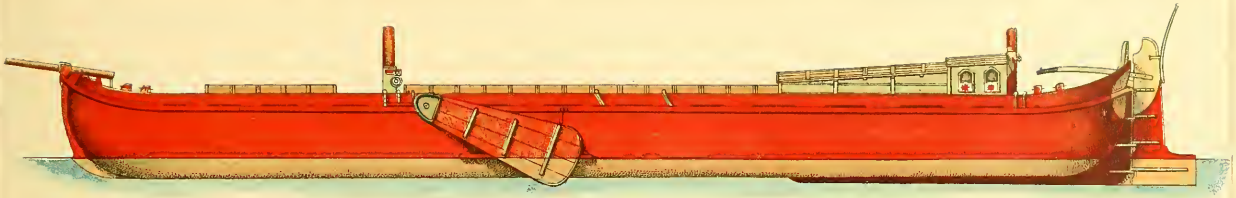
Fig. 49.

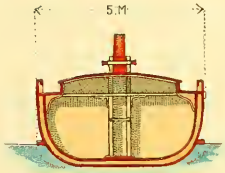


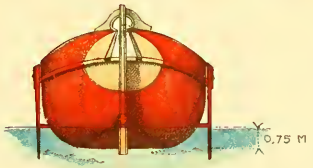
Schaal
Massstab 1 : 100 Scale
Echelle

BOEIERAAKJE. KLEINE BUJERAAK.

Fig. 50







Vlaamsche Pleit. Flämische Pleit. Flemish Pleit. Pleit flamand.

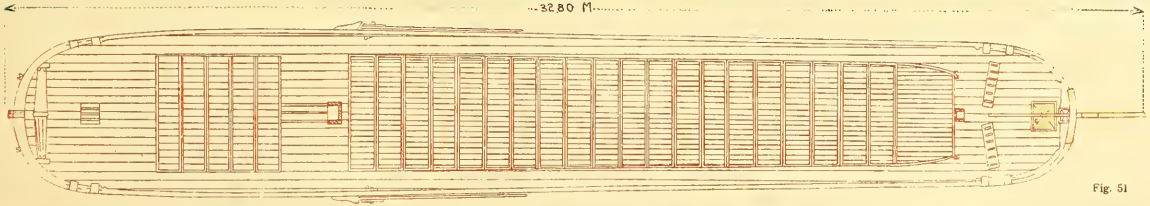


Fig. 51

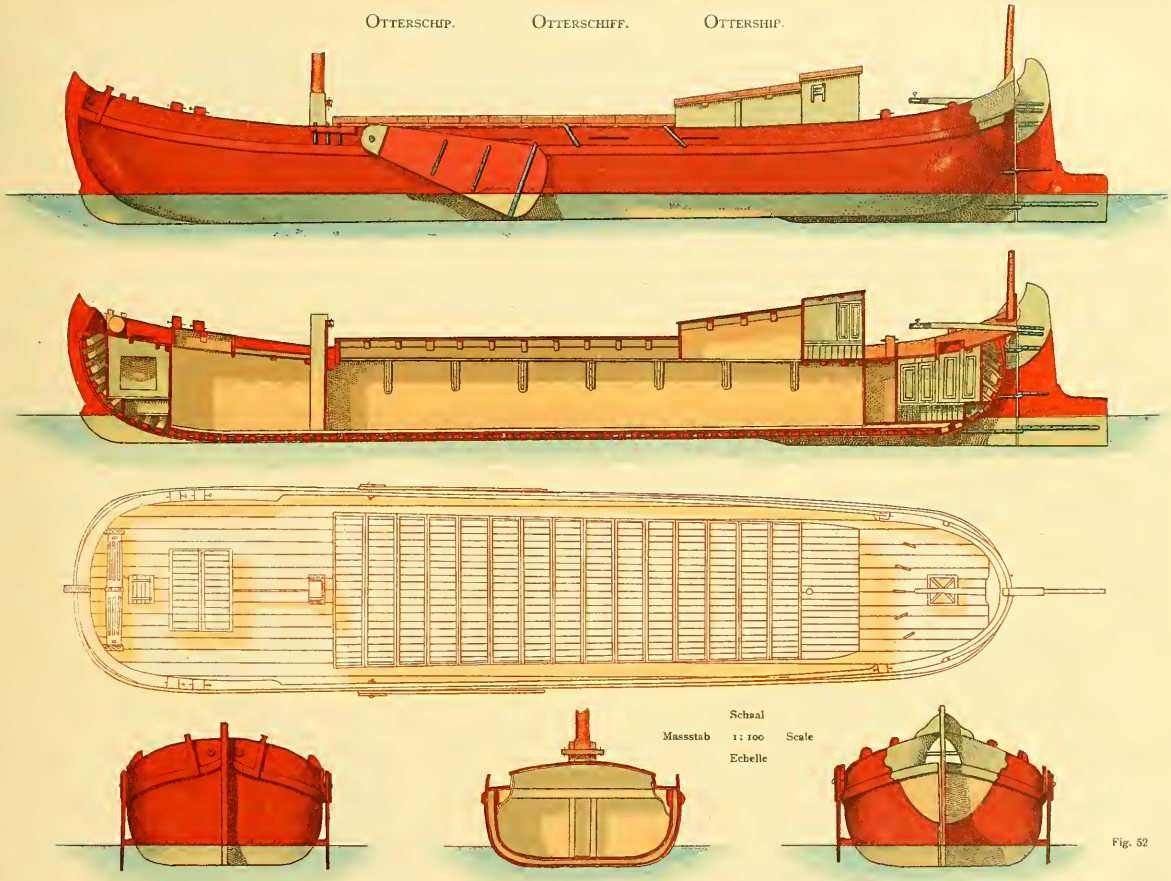
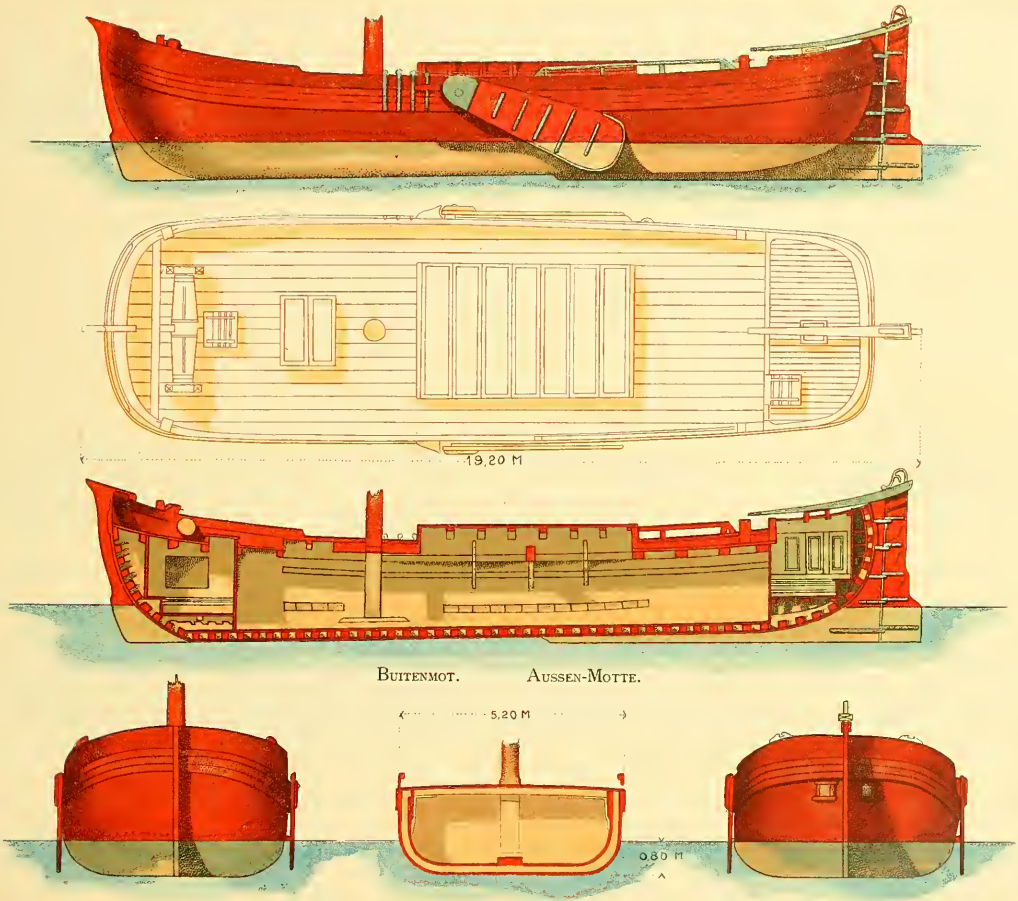

Otterschip.
Otterschiff.
Ottership.
Schaal
Massstab 1:100 Scale
Echelle

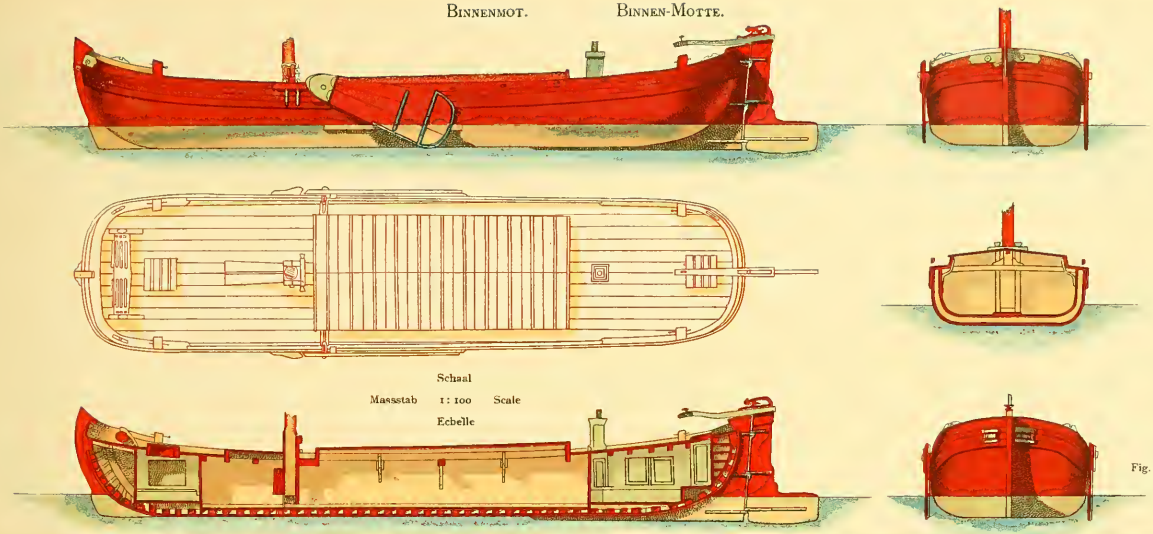
Fig. 52



BUITENMOT. AUSSEN-MOTTE.

Fig. 53.

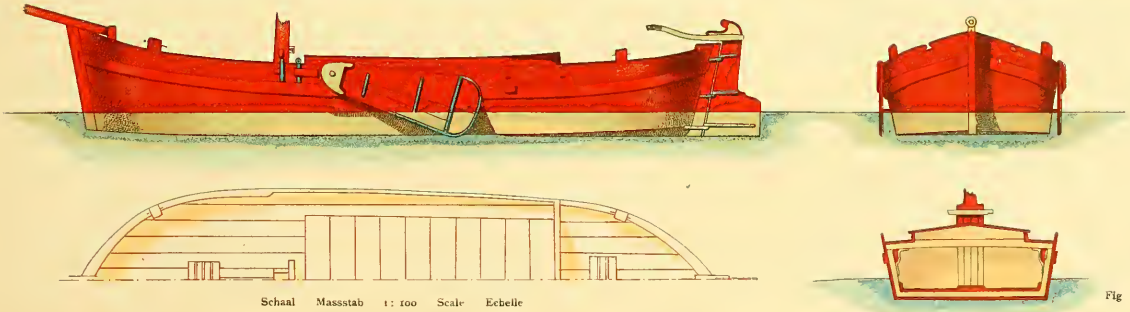
BINNENMOT. BINNEN-MOTTE.



Schaal
Massstab 1 : 100 Scale
Echelle

Fig. 54

SPITSEMOT. SPITZ-MOTTE.



Schaal Massstab 1 : 100 Scale Echelle

Fig 55.

« Eemspunt. »

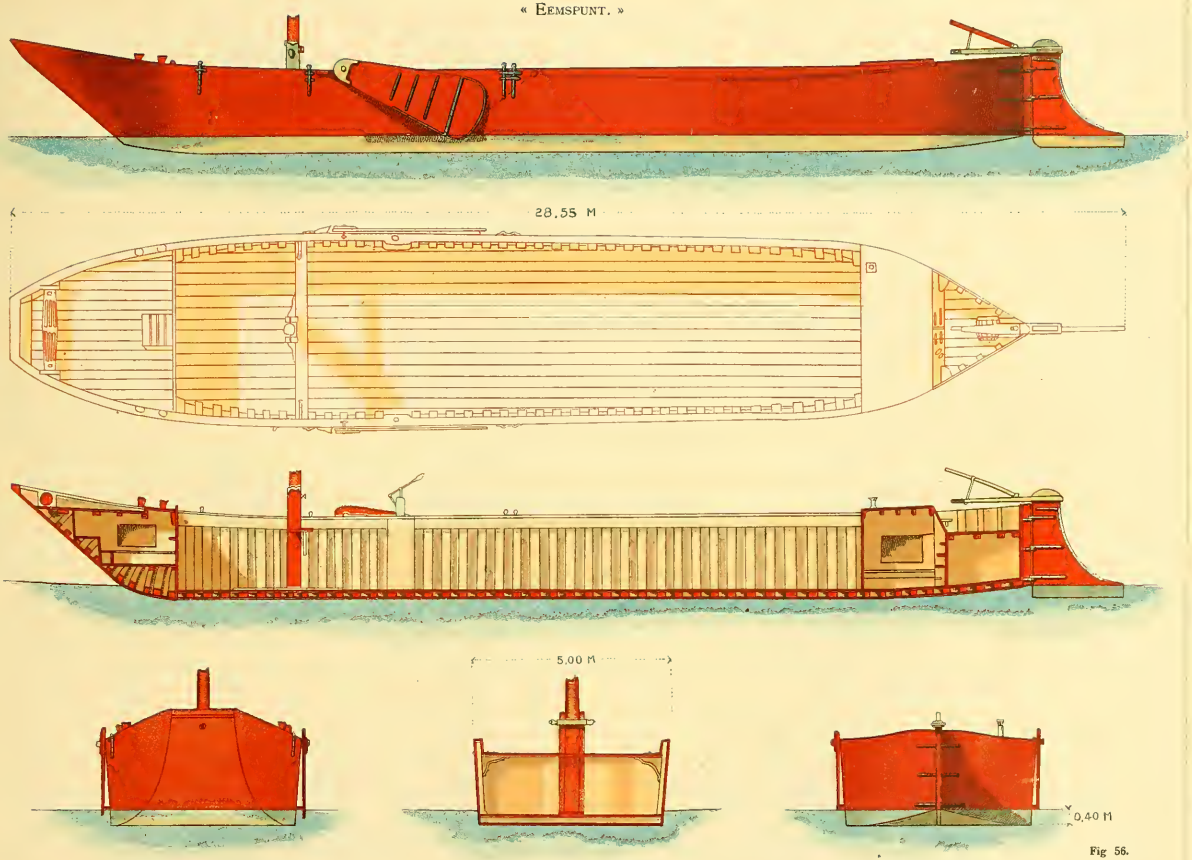
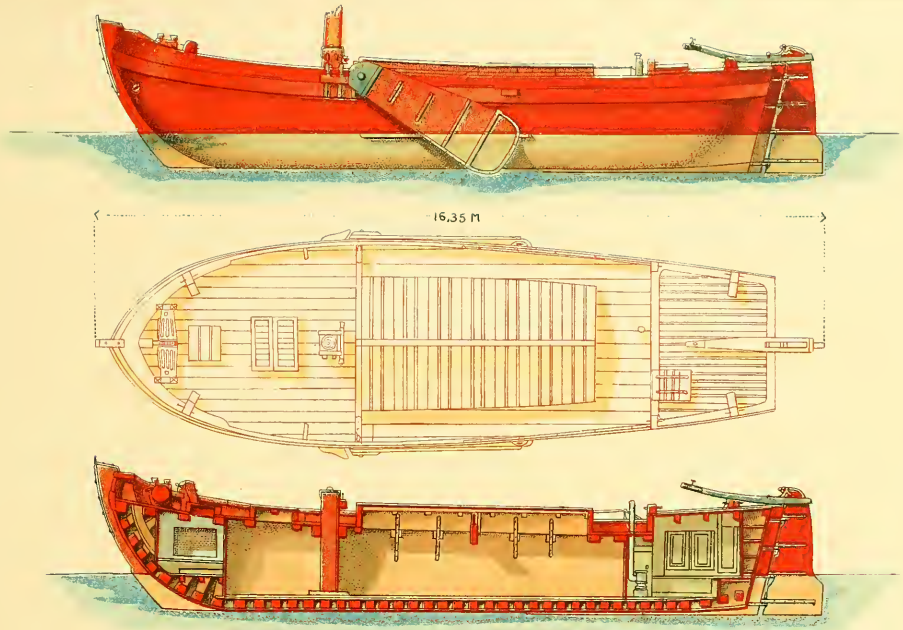


Fig 56.



« Bremerkahn. »

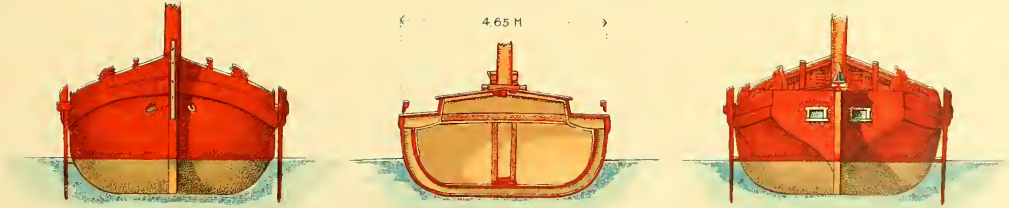
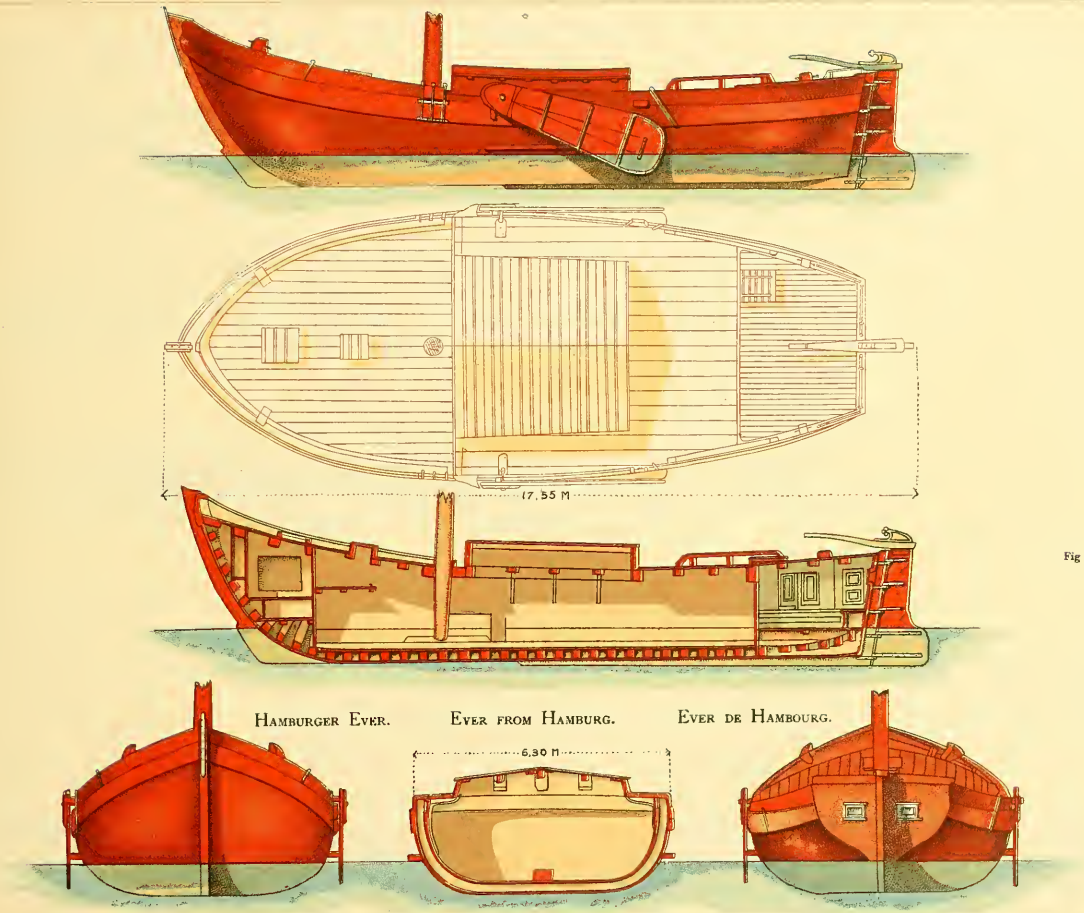
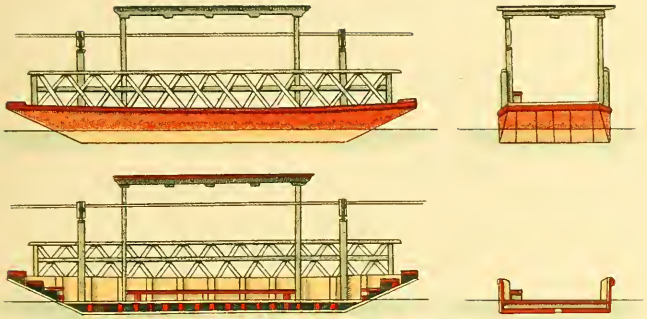


Fig. 57.

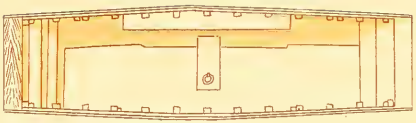


Hamburger Ever. Ever from Hamburg. Ever de Hambourg.

Fig 58.

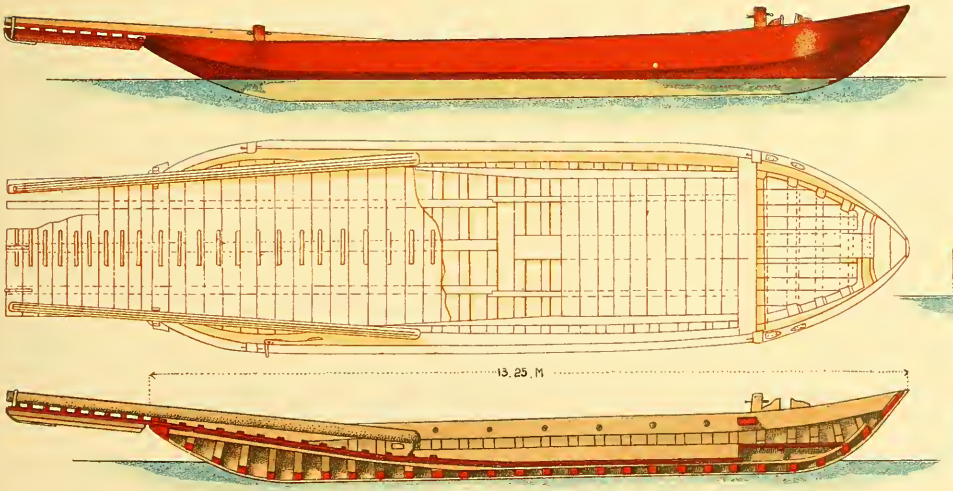


OVERHAALPONTJE. FÄHRNACHEN. NACELLE.



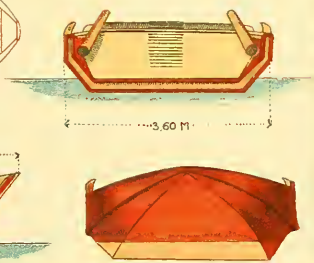
Schaal
Massstab 1:100 Scale
Echelle

Fig. 59



HALVE PONT.
HALB NACHEN.

Fig. 60.



JAAGPONT. PFERDEFÄHRE. PASSE-CHEVAL.

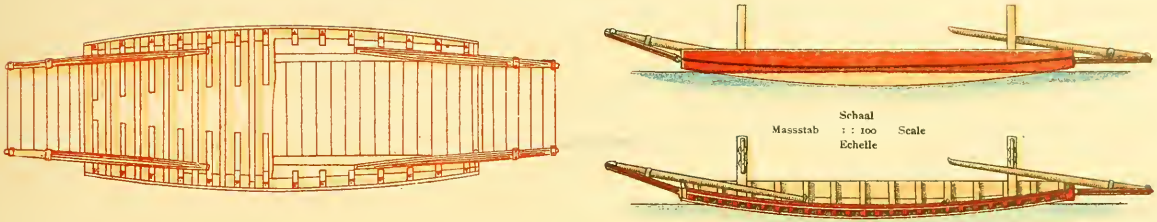


Fig. 61

KABEL-VEERPONT. KABELFÄHRE.

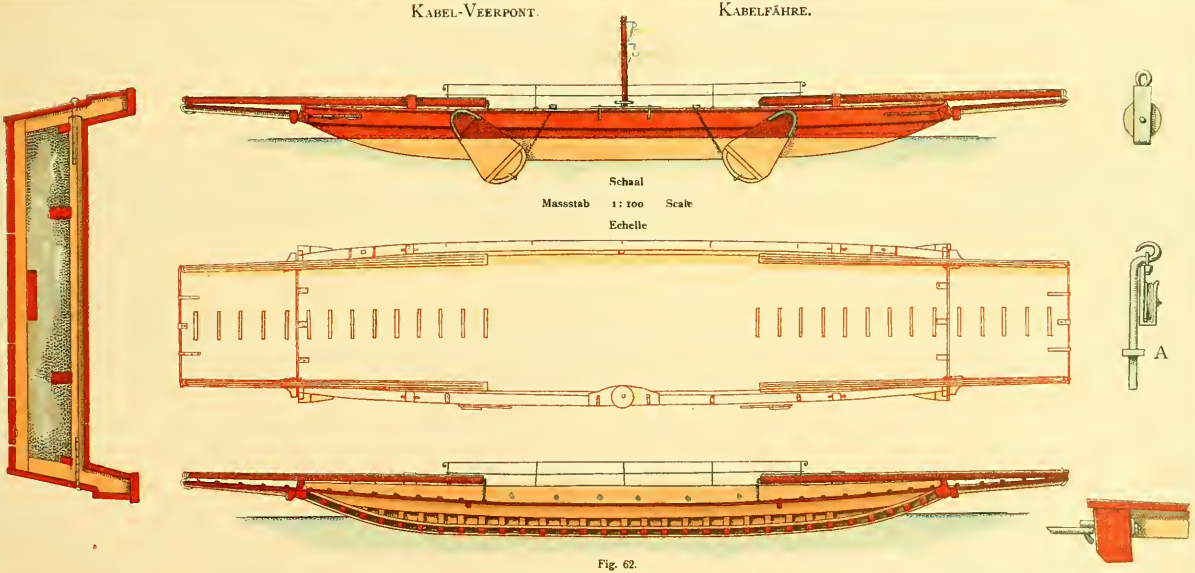
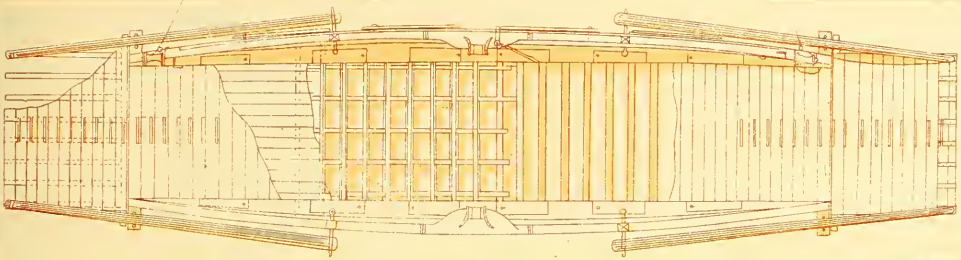
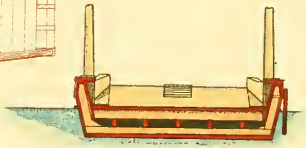


Fig. 62.



GIERPONT. GIERFÄHRE.

Schaal
Massstab 1 : 100 Scale
Echelle



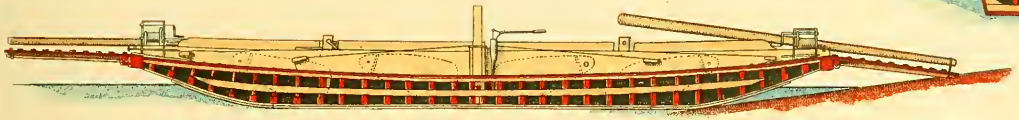
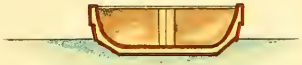


Fig. 63

« HALVE PONT. » (PIJPER)

Schaal Massstab 1 : 100 Scale Echelle



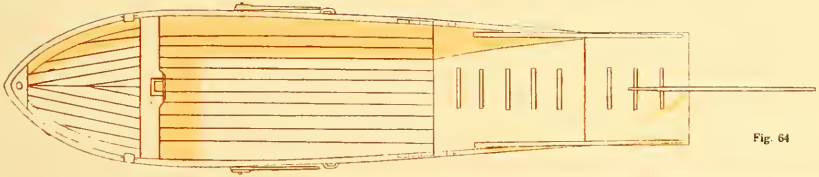
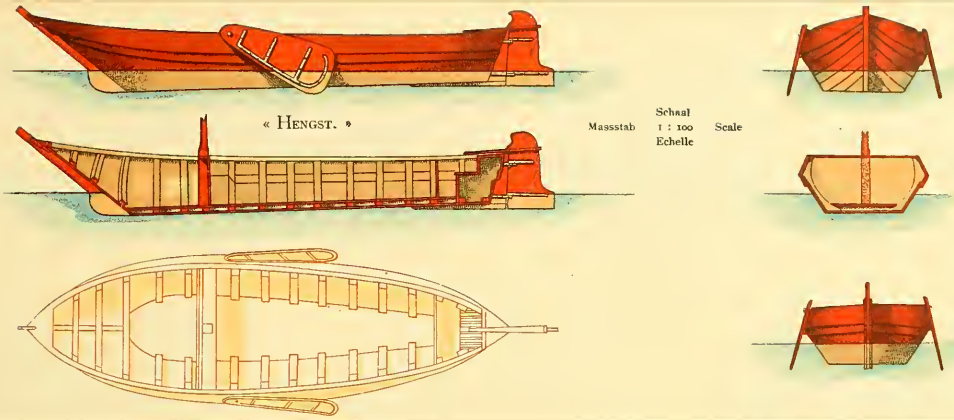


Fig. 64

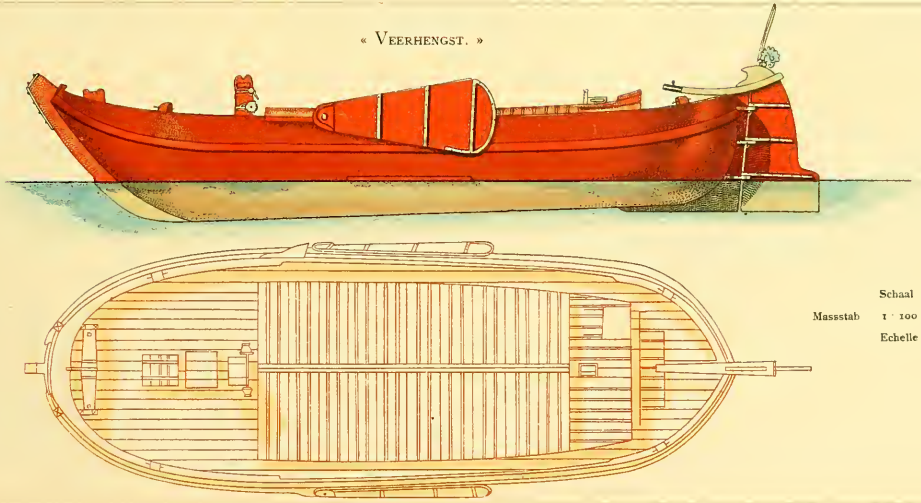
« Hengst. »



Massstab Schaal 1 : 100 Echelle Scale

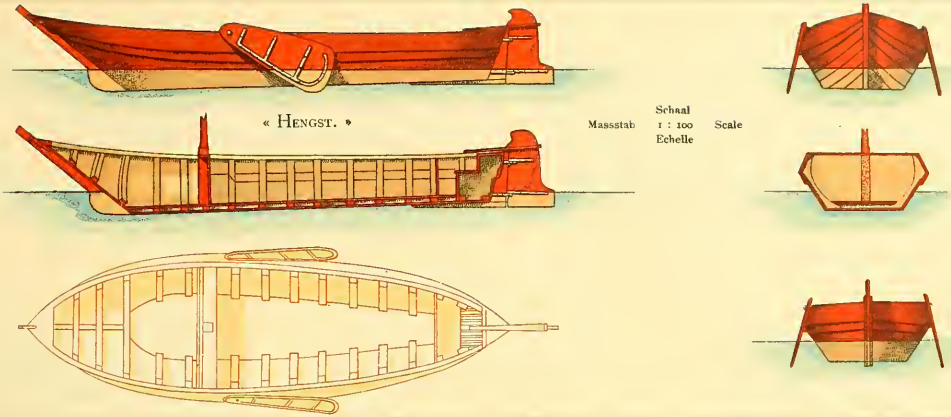
Fig. 65.

« Veerhengst. »



Massstab Schaal 1 : 100 Echelle Scale

Fig. 66.

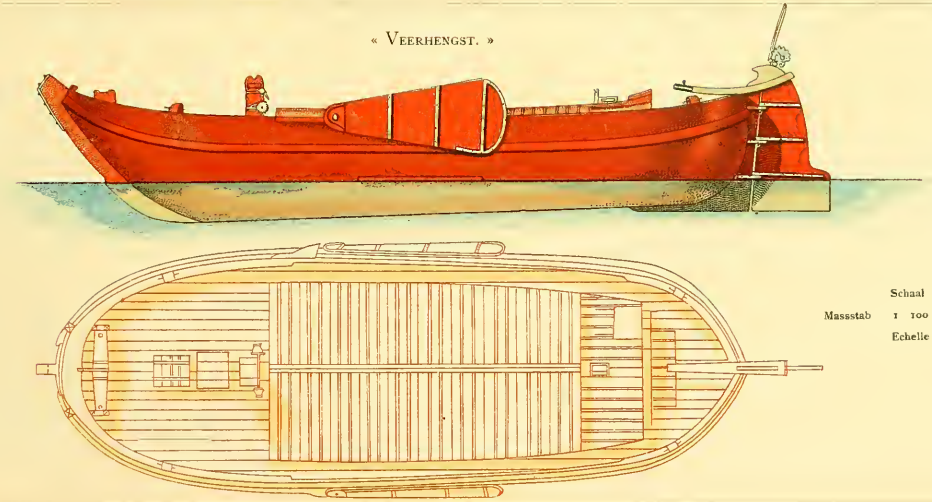


« Hengst. »

Massstab 1 : 100 Schaal Scale Echelle

Fig. 65.

« Veerhengst. »

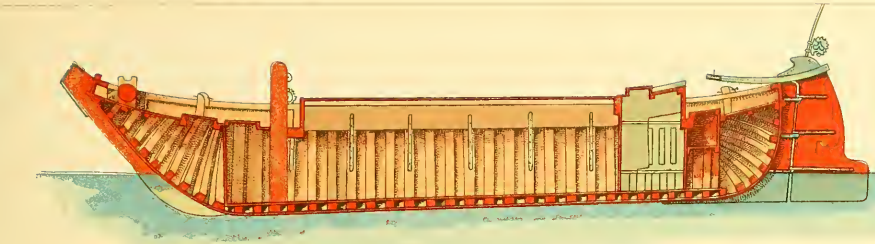


Massstab 1 : 100 Schaal Scale Echelle

Fig. 66.

« Veerhengst. »

Schaal
Massstab 1 : 100 Scale
Echelle



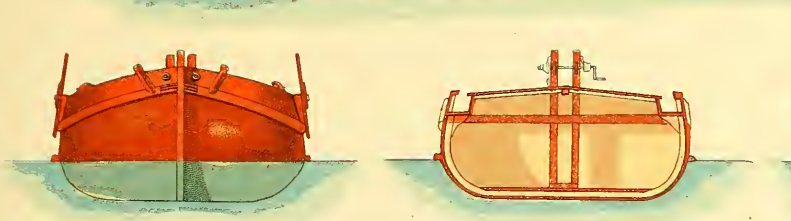
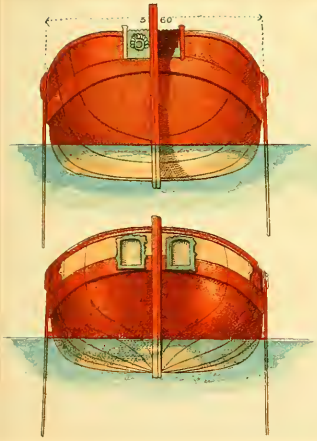


Fig. 66.



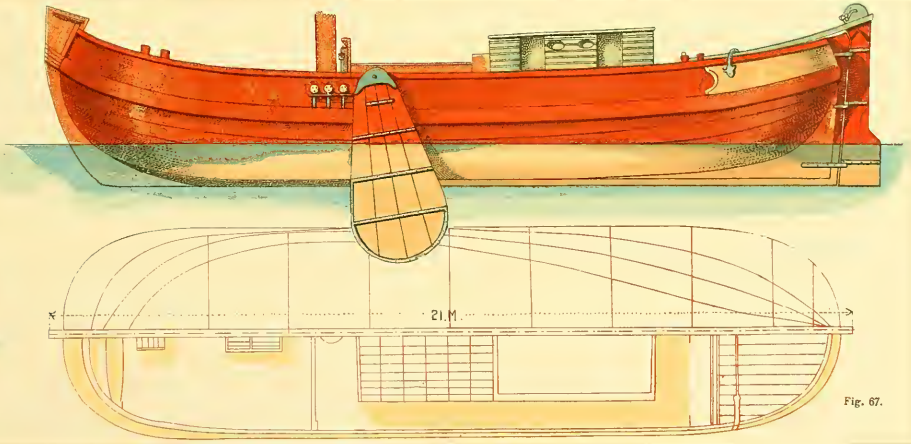
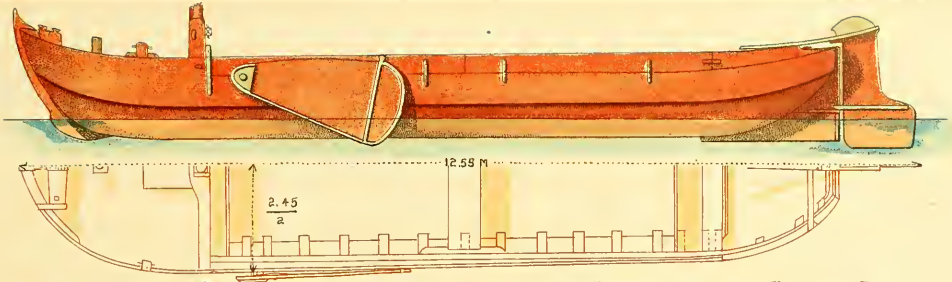


Fig. 67.

Veerman van Lemmer op Amsterdam.
Veerman from Lemmer to Amsterdam.

Fährkahn von Lemmer in Amsterdam.
Veerman de Lemmer a Amsterdam.



Vlet of Baggeraak. Nachen oder Baggeraak. Flat or Baggeraak Flette ou Baggeraak.

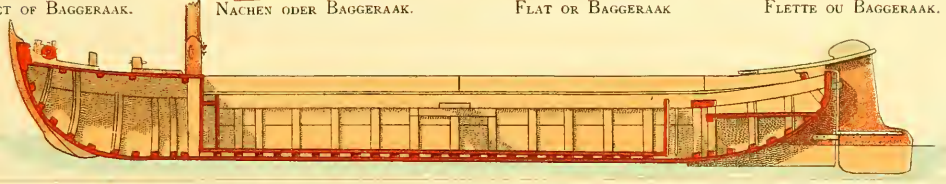
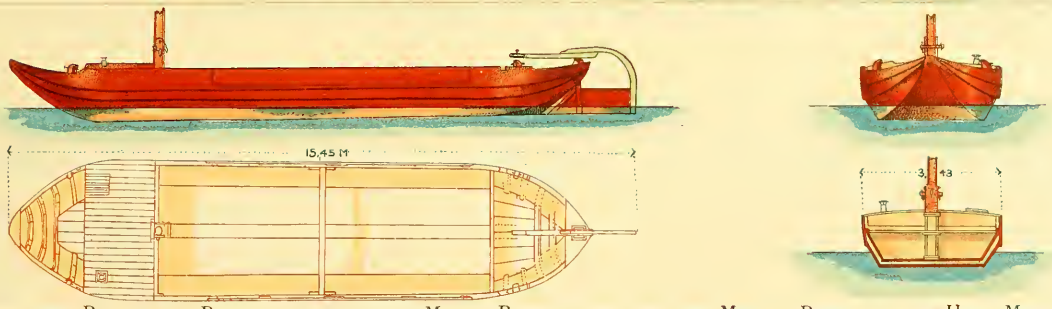


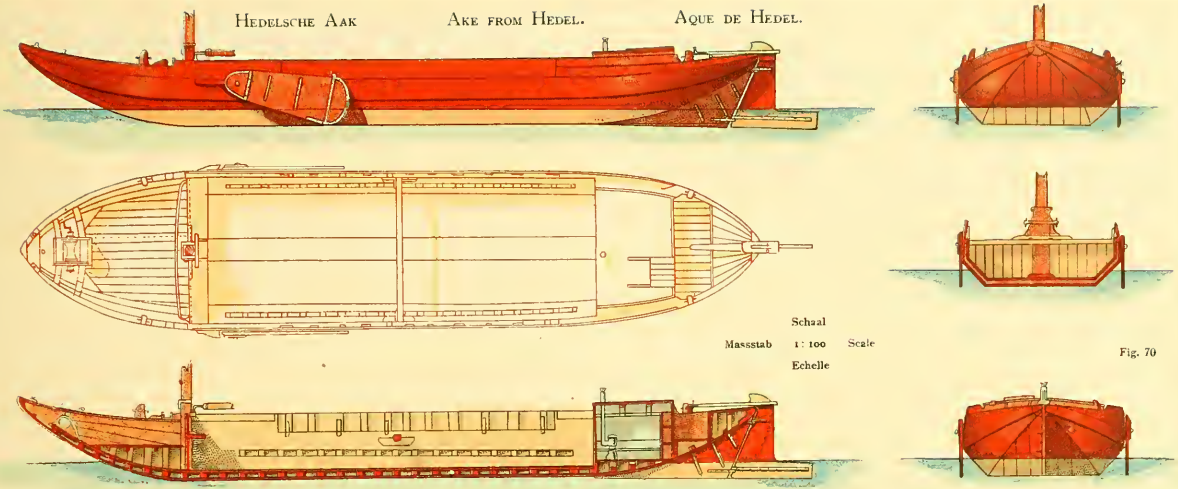
Fig. 68



Bovenmaassche Baggeraak. Baggeraak von der oberen Maas. Baggeraak from the upper Meuse. Baggeraak de la Haute Meuse.

Fig. 69

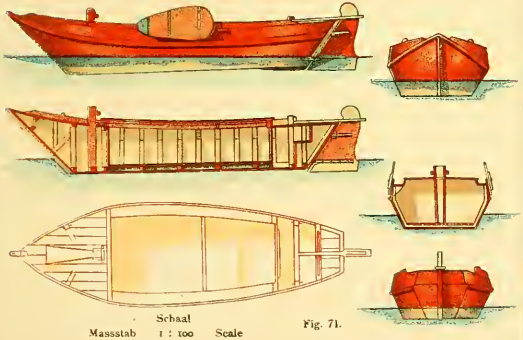
Hedelsche Aak — Ake from Hedel. — Aque de Hedel.



Schaal
Massstab 1 : 100 Scale
Echelle

Fig. 70

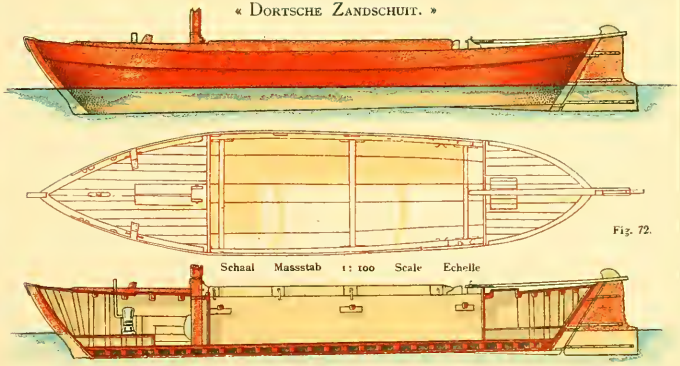
Snik (Gondel).



Schaal
Massstab 1 : 100 Scale
Echelle

Fig. 71.

« Dortsche Zandschuit. »



Schaal Massstab 1 : 100 Scale Echelle

Fig. 72.

Vreeswijksche Zandlichter. Sandleichter von Vreeswijk. Zandlichter from Vreeswijk. Zandlichter de Vreeswijk.

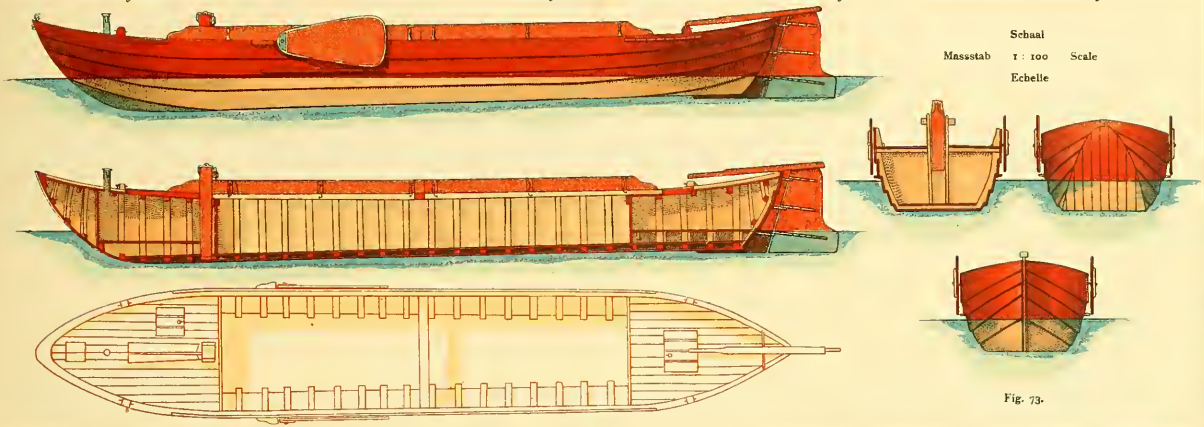


Fig. 73.

Laadbak. Leichter. Barge. Chaland.

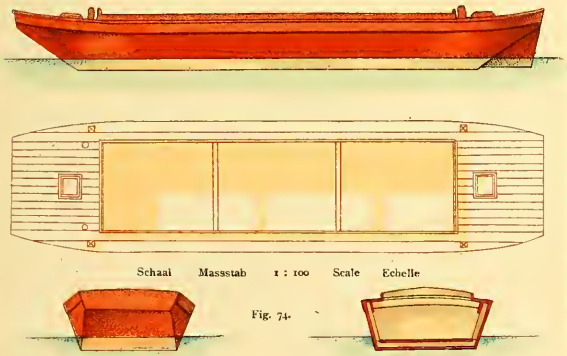


Fig. 74.

« Zolderschuit. »

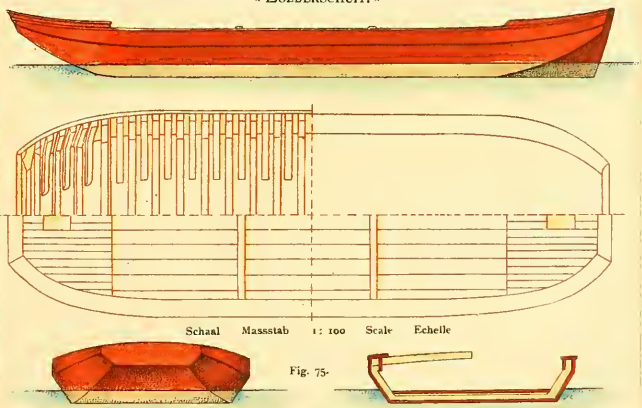


Fig. 75.

« Zolderschuit. »

Schaal
Massstab 1 : 100 Scale
Echelle

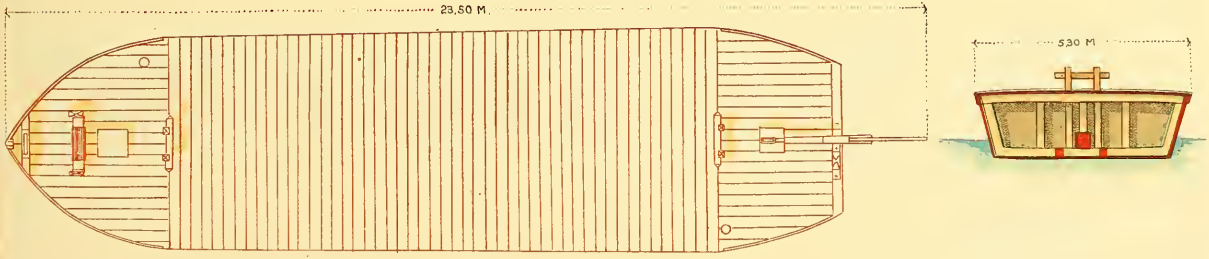
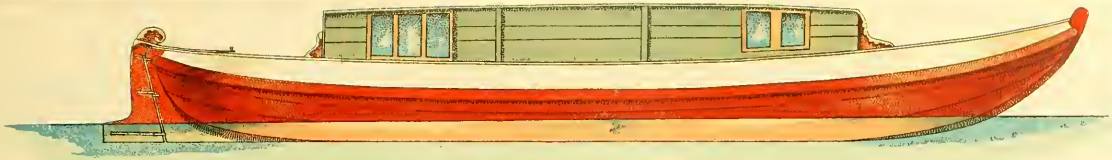
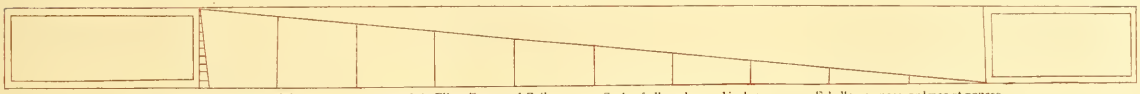


Fig. 76.



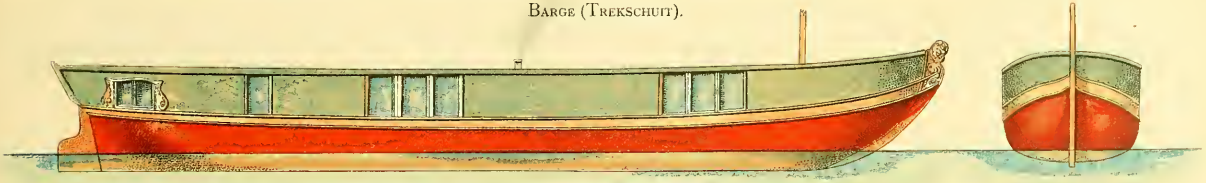
« Trekschuit 1830. »

Fig. 77.



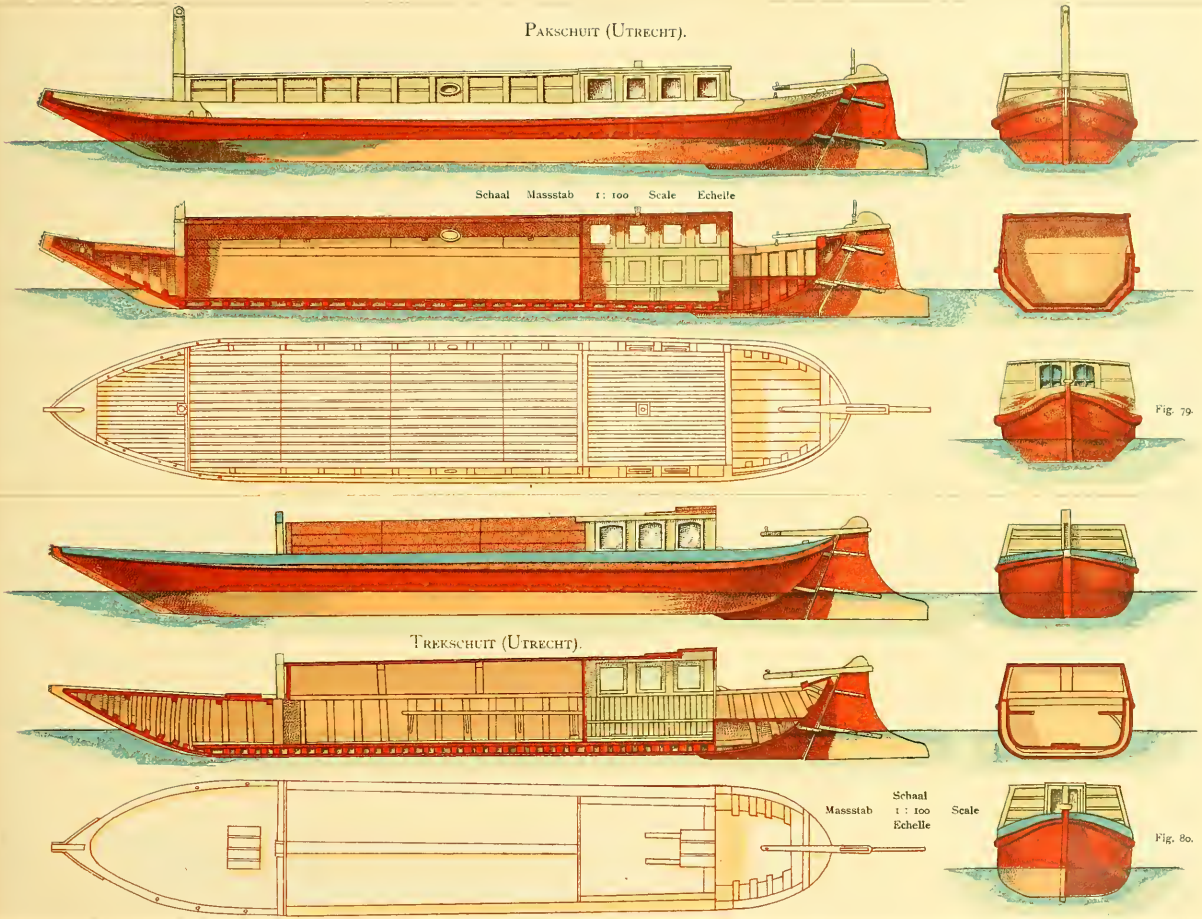
Schaal in ellen, palmen en duimen. Massstab in Elleo, Faust und Zoll. Scale of ells, palms and inches. Echelle en aunes, palmes et pouces.

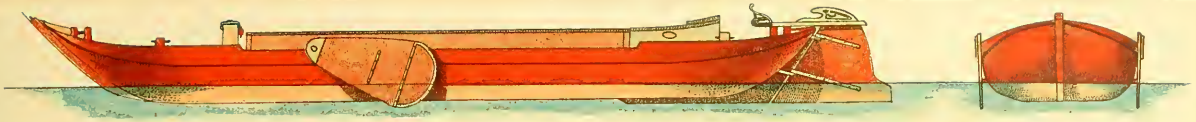
Barge (Trekschuit).



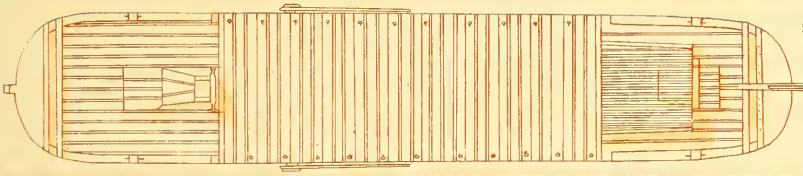
Schaal Massstab 1: 100 Scale Echelle

Fig. 78.


Pakschuit (Utrecht).
Schaal Massstab 1 : 100 Scale Echelle
Fig. 79.
Trekschuit (Utrecht).
Schaal
Massstab 1 : 100 Scale
Echelle
Fig. 80.



WESTLANDSCHE SCHUIT. WESTLÄNDISCHE SCHUTE. WESTLAND SCHUIT.



Lengte
Länge 15.95 M. Length
Longueur

Breedte
Breite 2.85 M. Breadth
Largeur

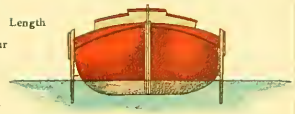
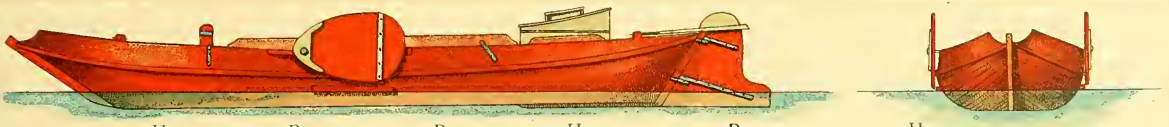
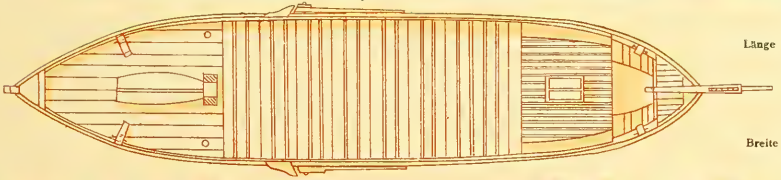


Fig. 81.



HAARLEMMERMEER-PLOMPERTJE. PLOMPERTJE FROM HAARLEM LAKE. PLOMPERTJE DU LAC DE HAARLEM.

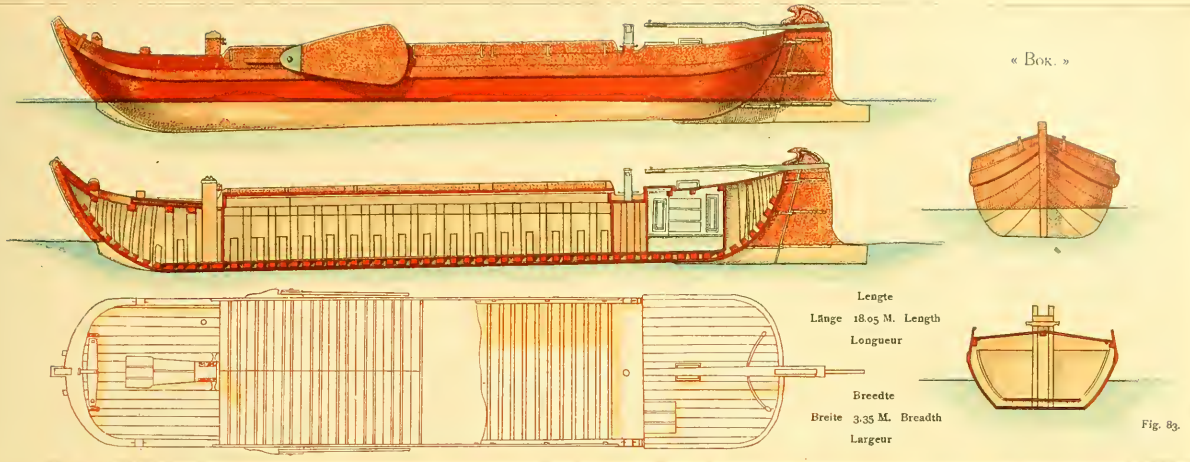


Lengte
Länge 12.86 M. Length
Longueur

Breedte
Breite 2.55 M. Freadth
Largeur

Fig. 82.

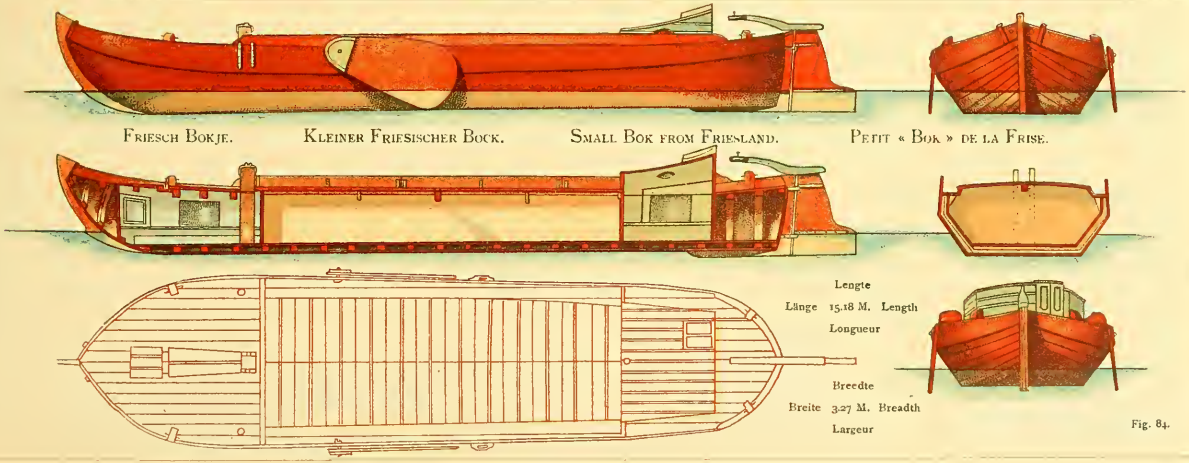
« Bok. »



Lengte
Länge 18.05 M. Length
Longueur

Breedte
Breite 3.35 M. Breadth
Largeur

Fig. 83.

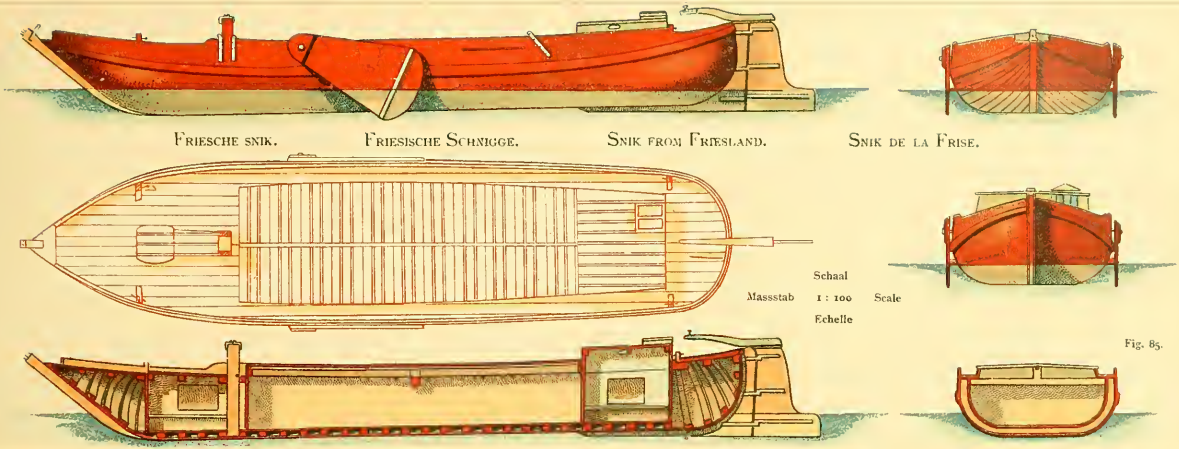


Friesch Bokje. Kleiner Friesischer Bock. Small Bok from Friesland. Petit « Bok » de la Frise.

Lengte
Länge 15.18 M. Length
Longueur

Breedte
Breite 3.27 M. Breadth
Largeur

Fig. 84.

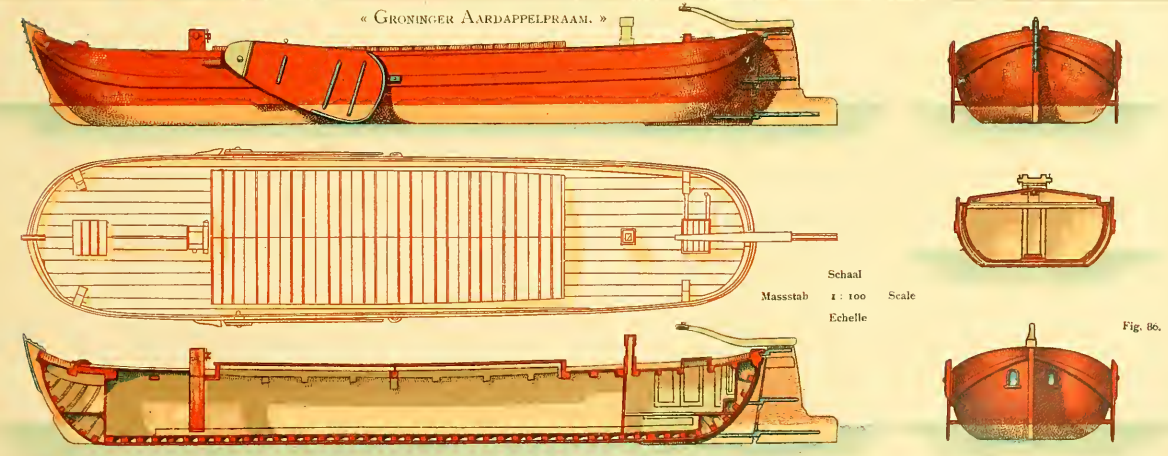


Friesche snik. Friesische Schnigge. Snik from Friesland. Snik de la Frise.

Schaal
Massstab 1 : 100 Scale
Echelle

Fig. 85.

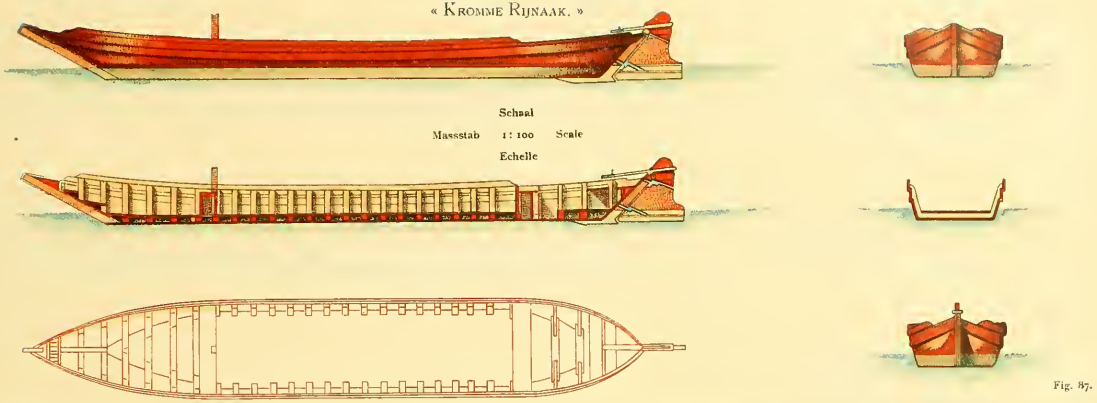
« Groninger Aardappelpraam. »



Schaal
Massstab 1 : 100 Scale
Echelle

Fig. 86.

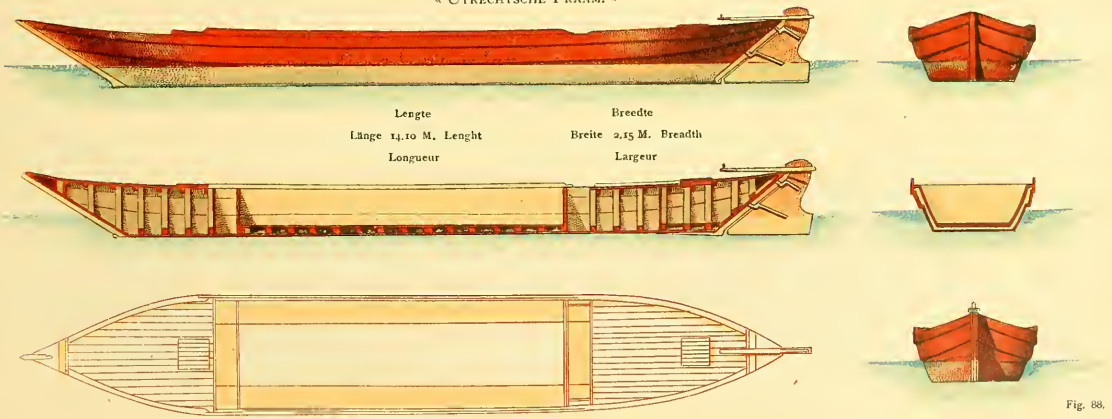
« Kromme Rijnaak. »



Schaal
Massstab 1 : 100 Scale
Echelle

Fig. 87.

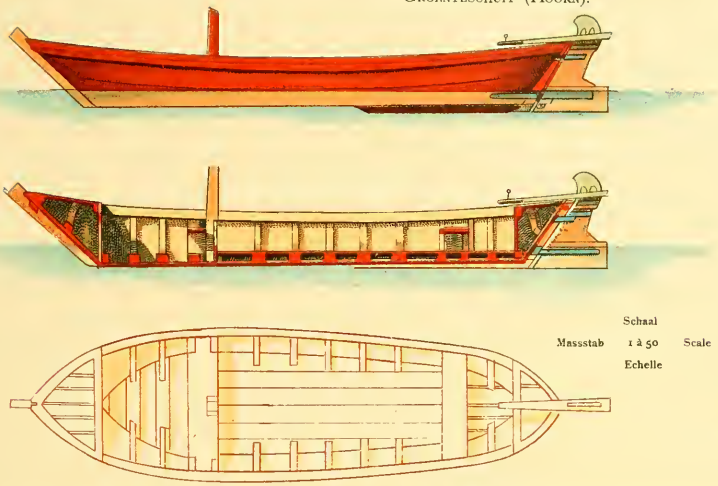
« Utrechtsche Praam. »



Lengte — Breedte
Länge 14.10 M. Lenght — Breite 2,15 M. Breadth
Longueur — Largeur

Fig. 88.

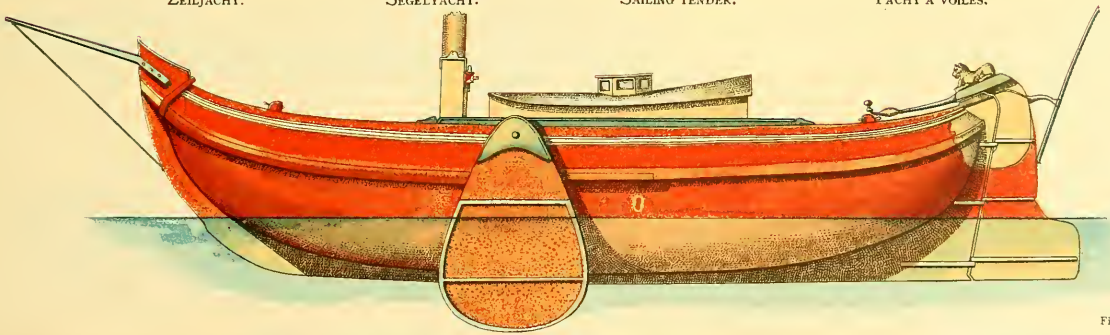
Groenteschuit (Hoorn).



Schaal
Massstab 1 à 50 Scale
Echelle

Fig. 89.

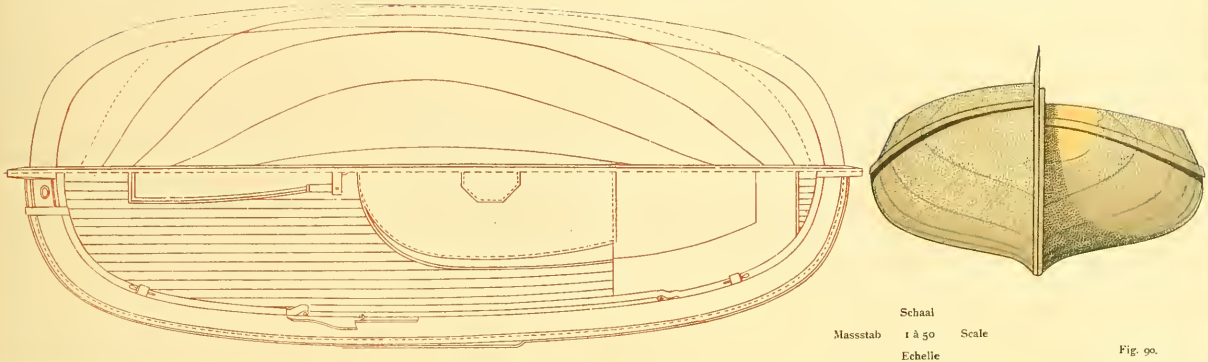
Zeiljacht. Segelyacht. Sailing tender. Yacht a voiles.



Schaal Massstab 1 à 50 Scale Echelle

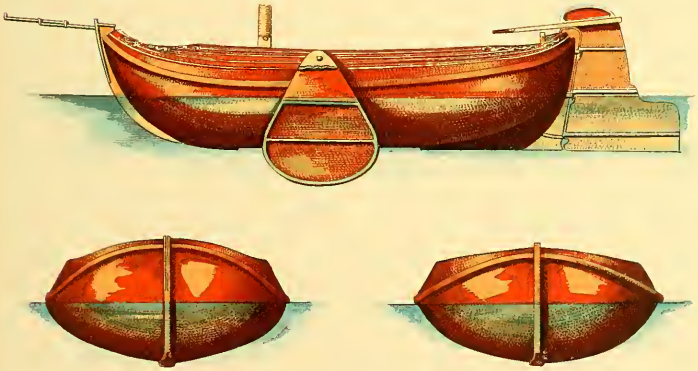
Fig. 90.

ZEILJACHT. SEGELYACHT. SAILING TENDER. YACHT A VOILES.

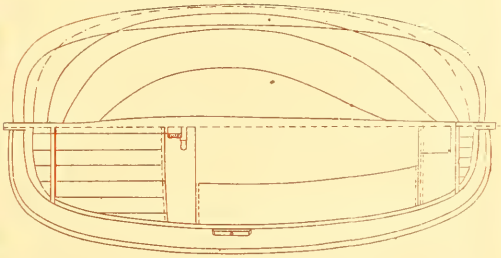


Schaal
Massstab 1 à 50 Scale
Echelle

Fig. 90.

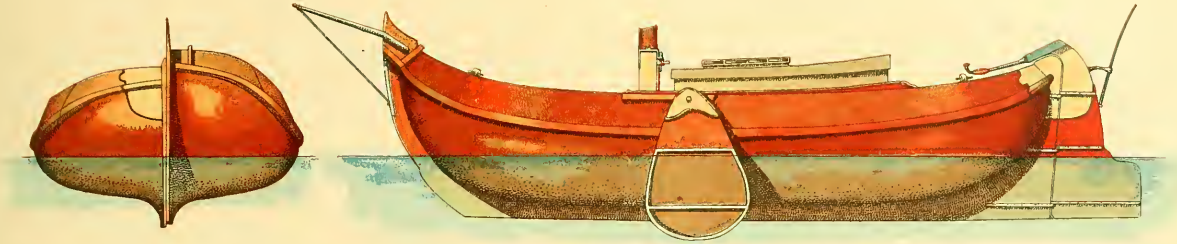


(FRIESLAND) « TJOTTER » (FRISE)



Schaal
Massstab 1 à 50 Scale
Echelle

Fig. 91.



Boeier. Bujer. Tender.

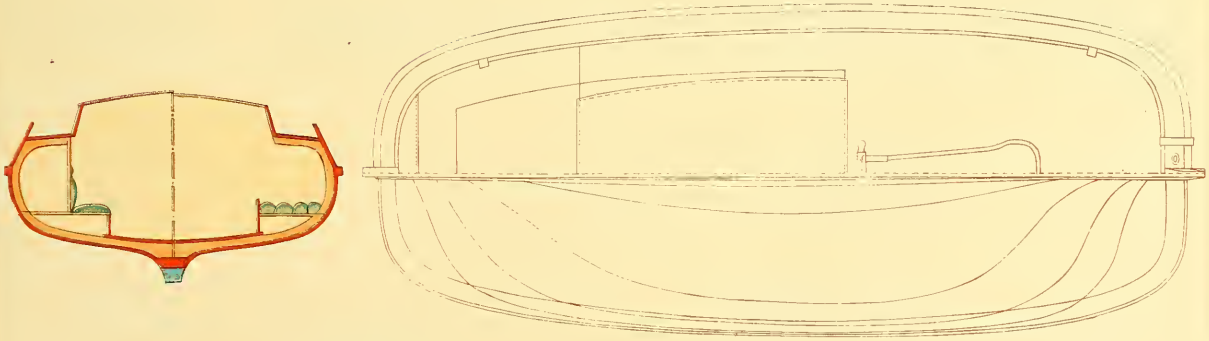
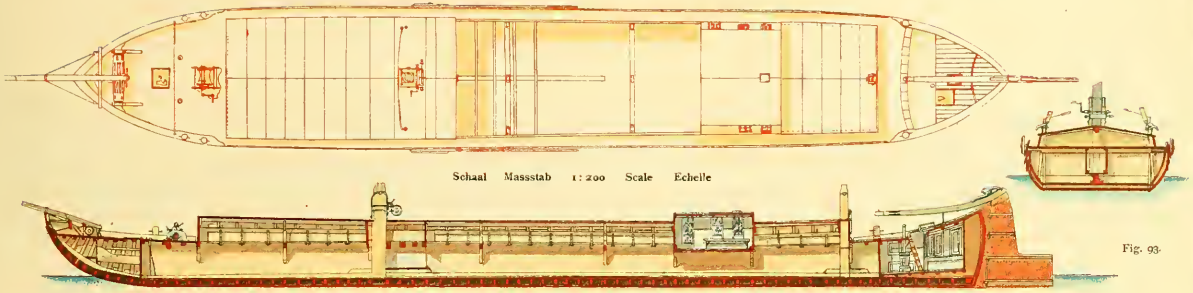


Fig 92.

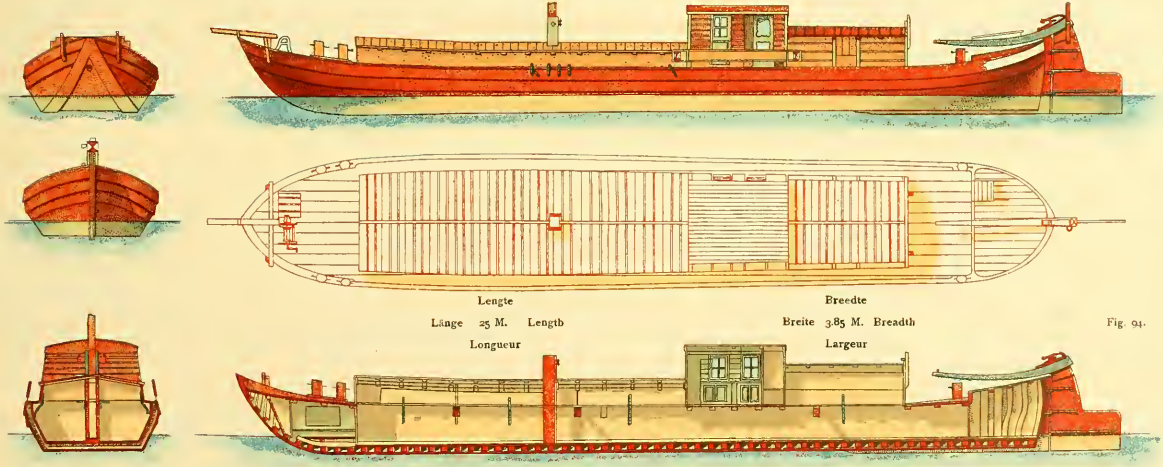
Dorstensche aak. Ake from Dorsten. Aque de Dorsten.



Schaal Massstab 1:200 Scale Echelle

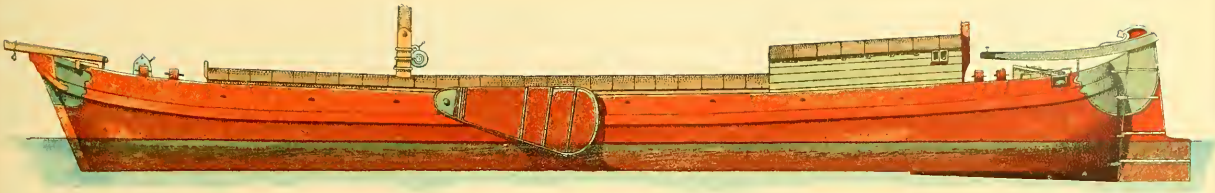
Fig. 93.

Neckaraak. Ake from the Neckar. Aque du Neckar.

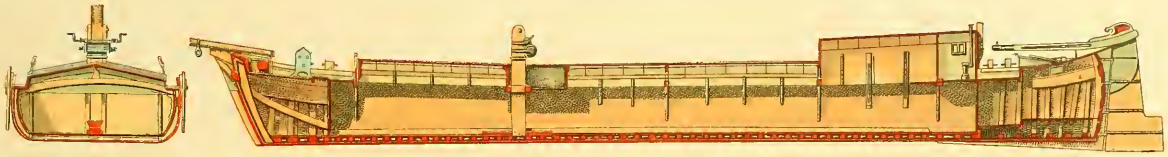


Lengte Breedte
Länge 25 M. Length Breite 3.85 M. Breadth
Longueur Largeur

Fig. 94.



« Stevenschip. »



Lengte
Länge 31.85 M. Lenght
Longueur

Breedte
Breite 5.80 M. Breadth
Largeur

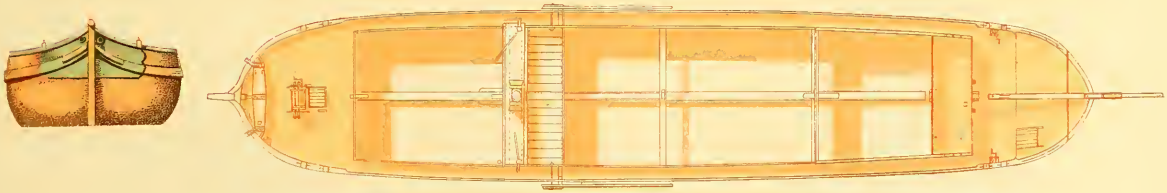
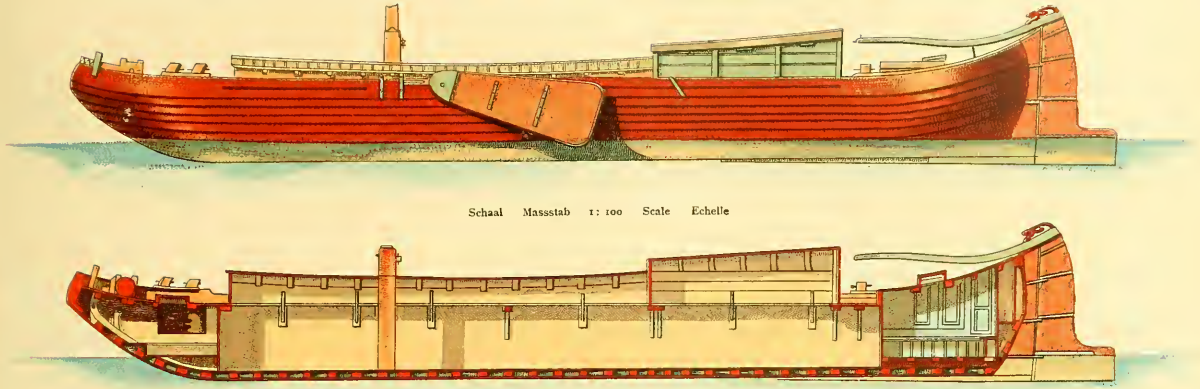


Fig. 95.

OVERBOORDIGE AAK. AAK MIT ÜBERGREIFENDER BEPLANKUNG. CLINKER BUILT AKE. AQUE AVEC BORDAGE A CLIN.



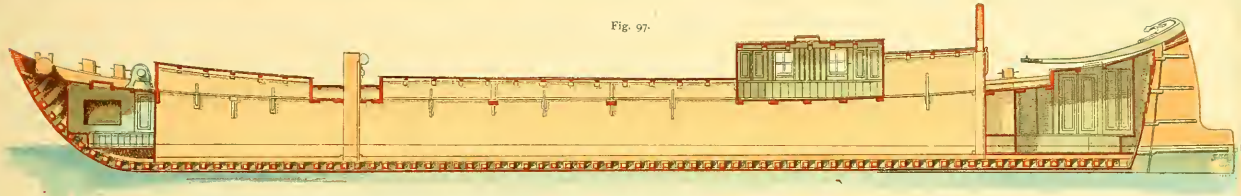
Schaal Massstab 1: 100 Scale Echelle

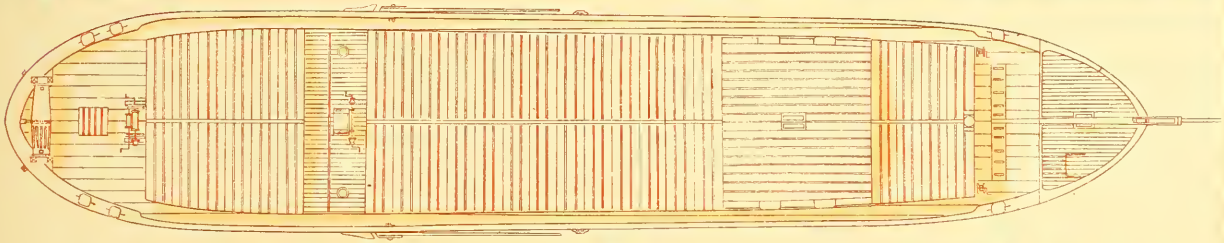
Fig. 96.

Overboordige Hollandsche aak. Hollandische Aak mit übergreifender Beplankung. Holland clinker built ake.

Aque de Hollande avec bordage a clin.

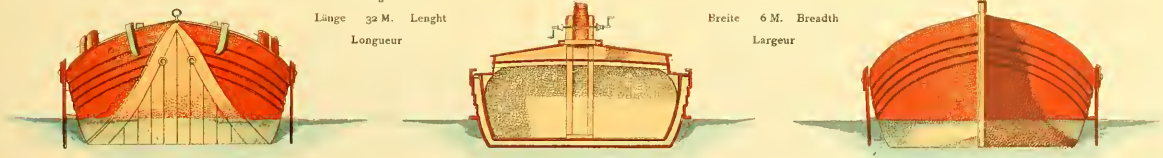
Fig. 97.



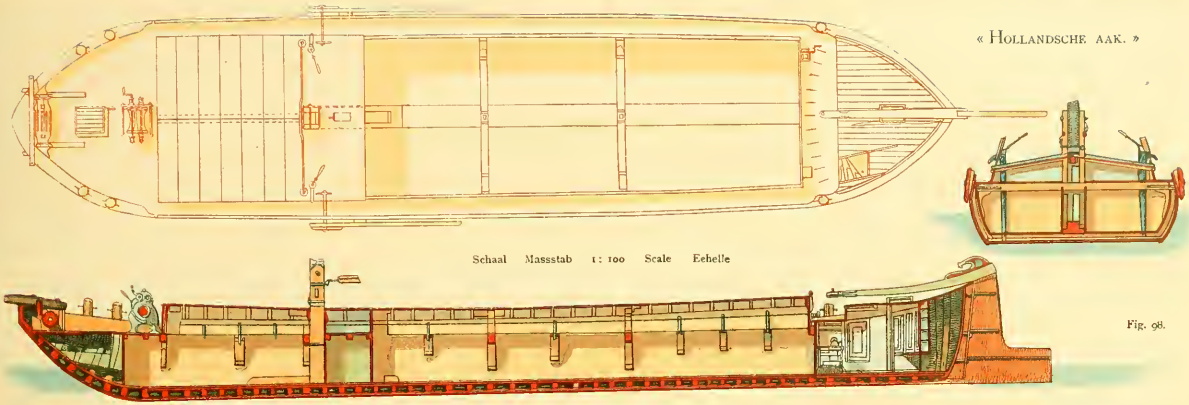


Lengte
Länge 32 M. Lenght
Longueur

Breedte
Breite 6 M. Breadth
Largeur



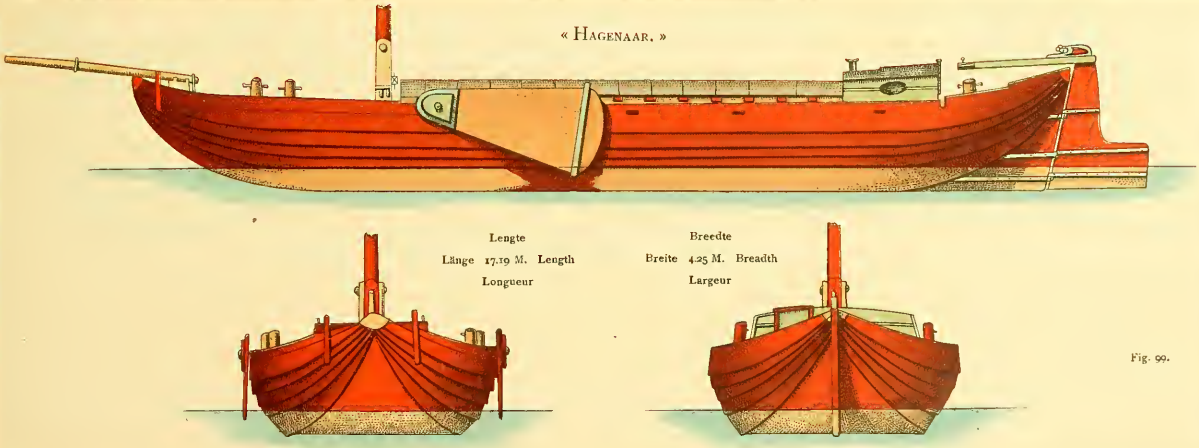
« Hollandsche aak. »



Schaal Massstab 1 : 100 Scale Echelle

Fig. 98.

« Hagenaar. »



Lengte
Länge 17.19 M. Length
Longueur

Breedte
Breite 4.25 M. Breadth
Largeur

Fig. 99.

HAGENAAR. SCHIFF VOM HAAG. BOAT FROM THE HAGUE BATEAU DE LA HAYE.

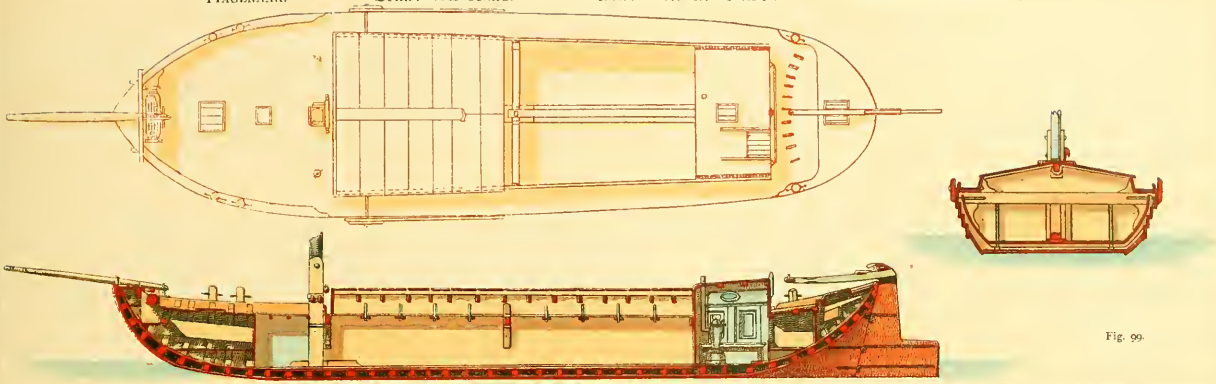
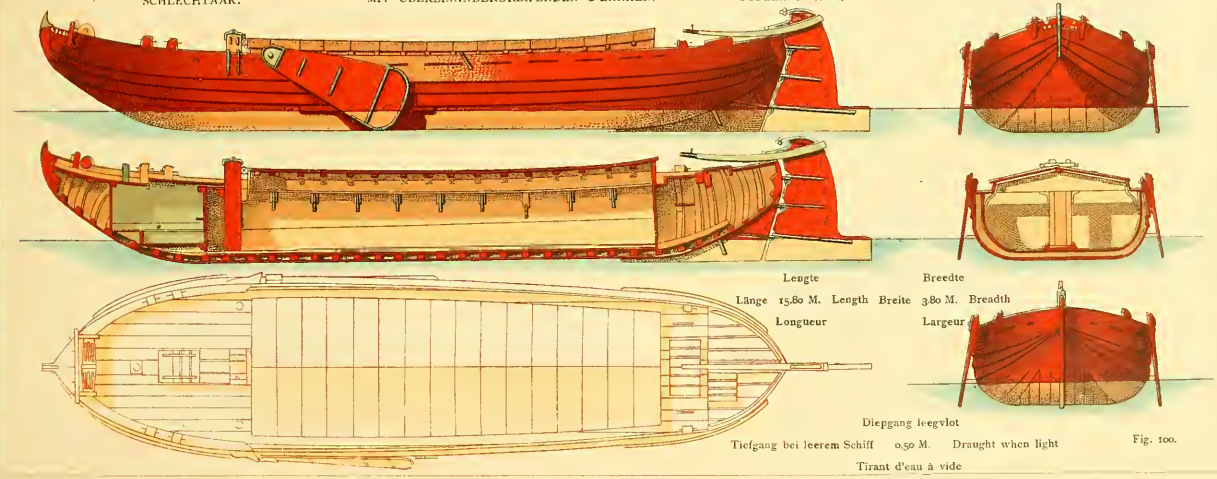


Fig. 99.

HOLLANDSCHE OVERBOORDIGE SCHLECHTAAK. HOLLÄNDISCHE SCHLECHTAAK MIT ÜBEREINANDERGREIFENDEN PLANKEN. CLINKER BUILT HOLLAND AKE. «SCHLECHTAAK» HOLLANDAIS AVEC BORDAGE A CLIN.



Lengte Breedte
Länge 15.80 M. Length Breite 3.80 M. Breadth
Longueur Largeur

Diepgang leegvlot
Tiefgang bei leerem Schiff 0.50 M. Draught when light
Tirant d'eau à vide

Fig. 100.

Turfijker (overboordig) Torfkahn mit übereinandergreifenden Planken. Clinker built turfijker. « Turfijker » avec bordage a clin.

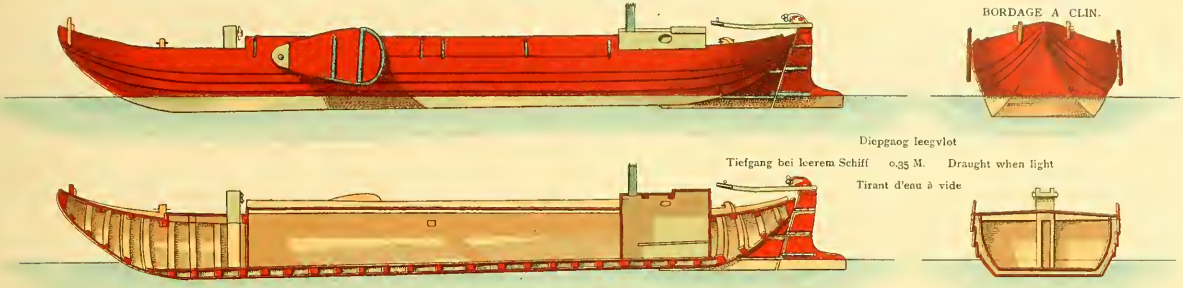


Fig. 101.

s'Gravenmoersche aak. Aak von s'Gravenmoer. Ake from s'Gravenmoer. Aque de s'Gravenmoer.

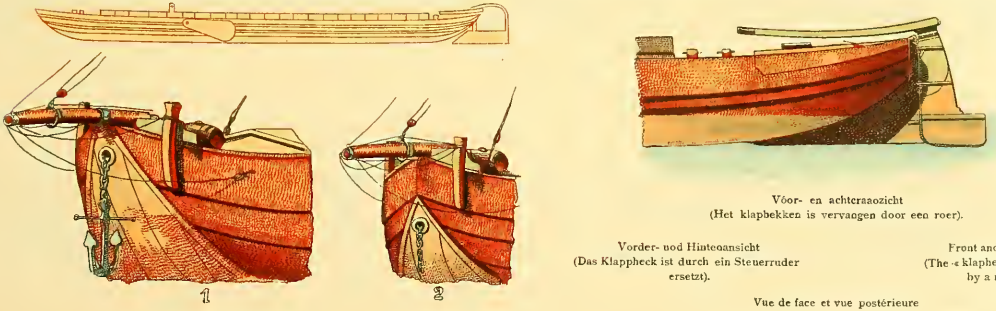


Fig. 102.

Vóor- en achteraozicht
(Het klapbekken is vervaogen door een roer).

Vorder- nod Hinteoansicht
(Das Klappheck ist durch ein Steuerruder ersetzt).

Front and rear views
(The « klaphekkeo » is replaced by a rudder).

Vue de face et vue postérieure
(Le « klaphekken » est remplacé par un gouvernail).

s'Gravenmoersche aak. Aak von s'Gravenmoer. Ake from s'Gravenmoer. Aque de s'Gravenmoer.

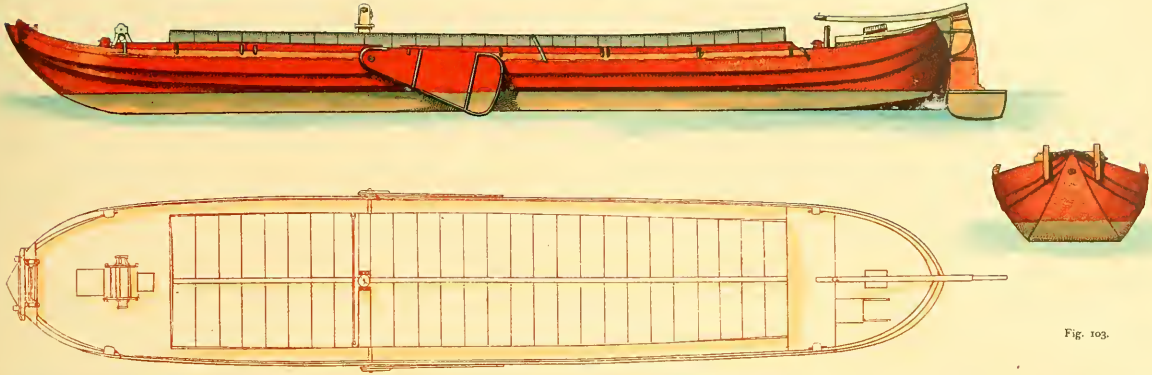
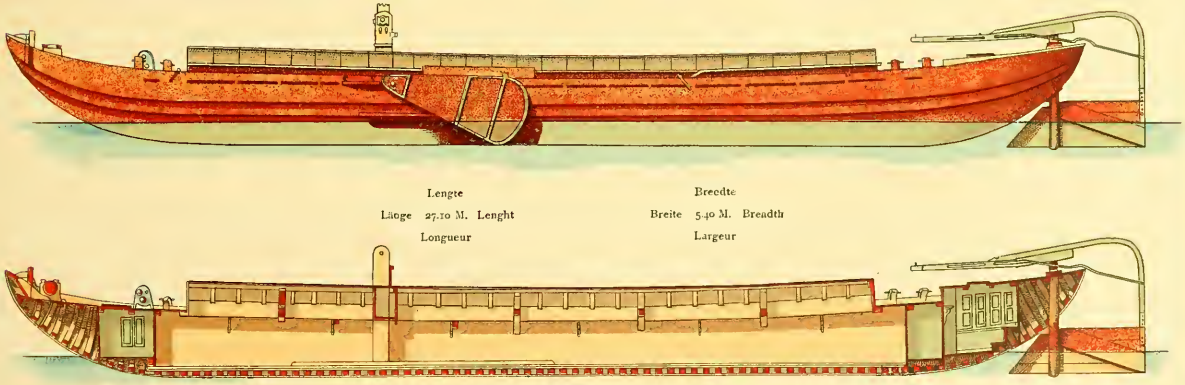


Fig. 103.

s'Gravenmoersche aak. Aak von s'Gravenmoer. Ake from s'Gravenmoer. Aque de s'Gravenmoer.



Lengte
Länge 27.10 M. Lenght
Longueur

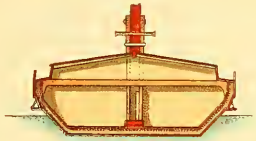
Breedte
Breite 5.40 M. Breadth
Largeur

Diepgang leegvlot
Tiefgang bei leerem Schiff 0.56 M. Draught when light
Tirant d'eau à vide

Fig. 104.

s'Gravenmoersche aak.

Aak von s'Gravenmoer.



Ake from s'Gravenmoer.

Aque de s'Gravenmoer.

Fig. 104.

« Keen. »

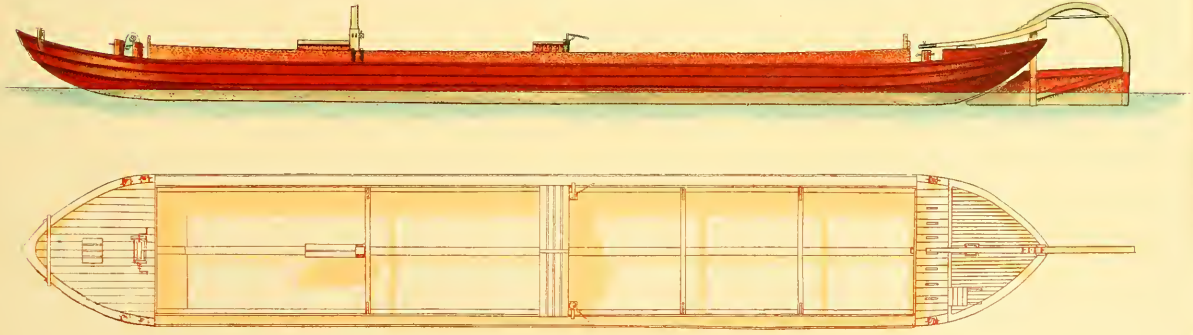
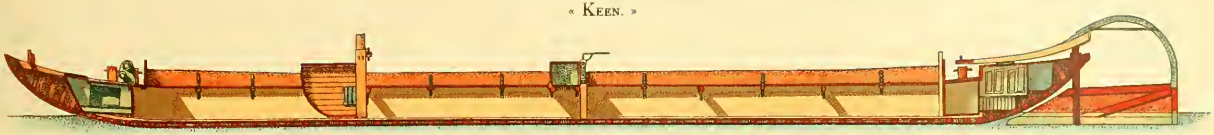


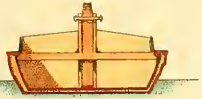
Fig. 105.

« Keen. »



Diepgang leegvlot
Tiefgang bei leerem Schiff 0.30 M. Draught when light
Tirant d'eau à vide

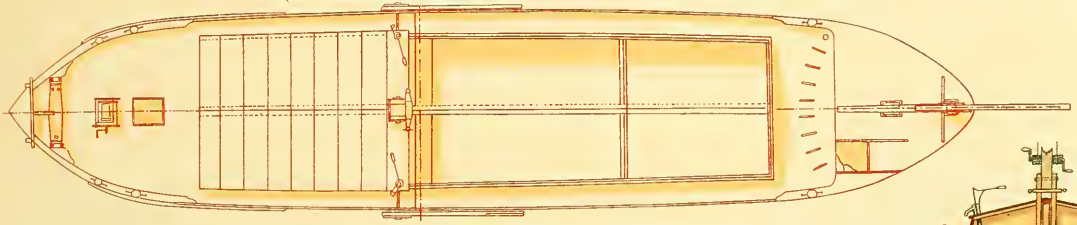
Lengte
Länge 42 M. Length
Longueur



Breedte
Breite 6 M. Breadth
Largeur

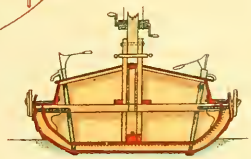
Fig. 105.

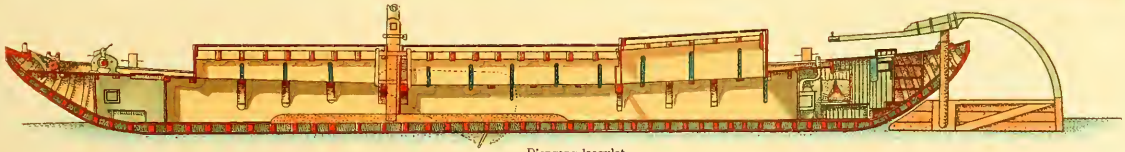
(Oud model Altes Modell. « Keen. » Old model. Ancien modèle.)



Lengte
Länge 22.65 M. Length
Longueur

Breedte
Breite 4.63 M. Breadth
Largeur





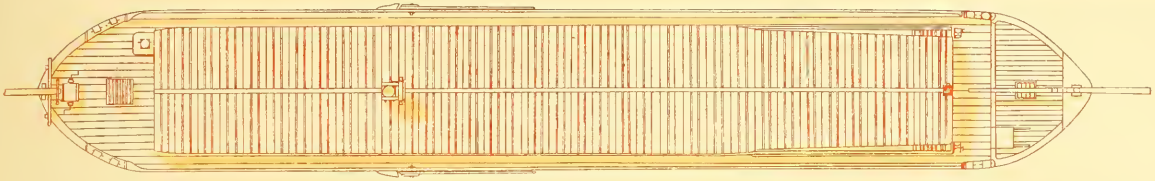
Diepgang leegvlot
Tiefgang bei leerem Schiff 0.35 M. Draught when light
Tirant d'eau à vide

Fig. 106.

« KEENAAK. »

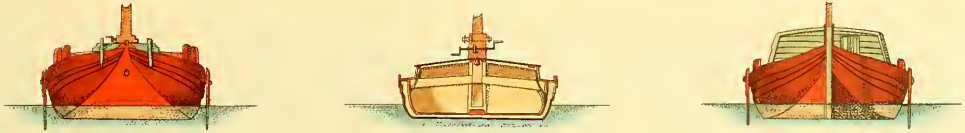
Lengte
Länge 36.45 M. Lenght
Loogueur

Breedte
Breite 5.56 M. Breadth
Largeur

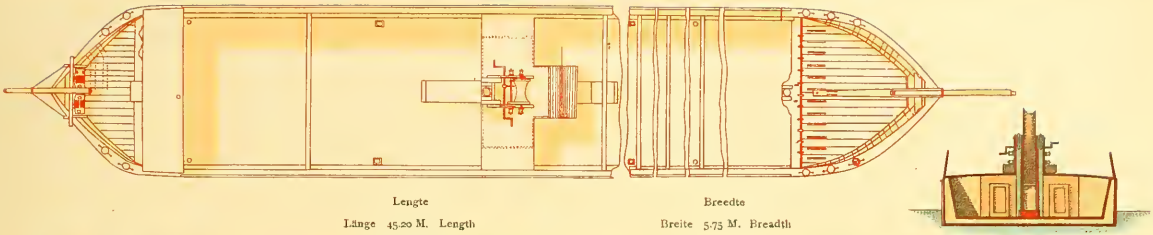


Diepgang leegvlot
Tiefgang bei leerem Schiff 0.50 M. Draught when light
Tirant d'eau à vide

Fig. 107.



« Slof. »

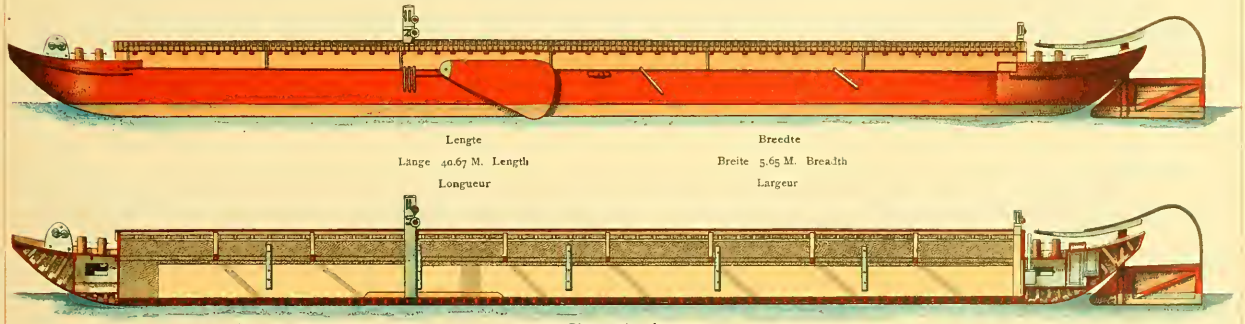


Lengte — Breedte
Länge 45.20 M. Length — Breite 5.73 M. Breadth
Longueur — Largeur

Diepgang leegvlot
Tiefgang bei leerem Schiff 0.40 M. Draught when light
Tirant d'eau à vide

Fig. 108.

Overdekte aak. Gedeckte Aak. Covered ake. Aque couverte d'écoutilles.



Lengte — Breedte
Länge 40.67 M. Length — Breite 5.65 M. Breadth
Longueur — Largeur

Diepgang leegvlot
Tiefgang bei leeren Schiff 0.47 M. Draught when light
Tirant d'eau à vide

Fig. 109.

Overdekte aak. Gedeckte Aak. Covered ake. Aque couverte d'écoutilles.

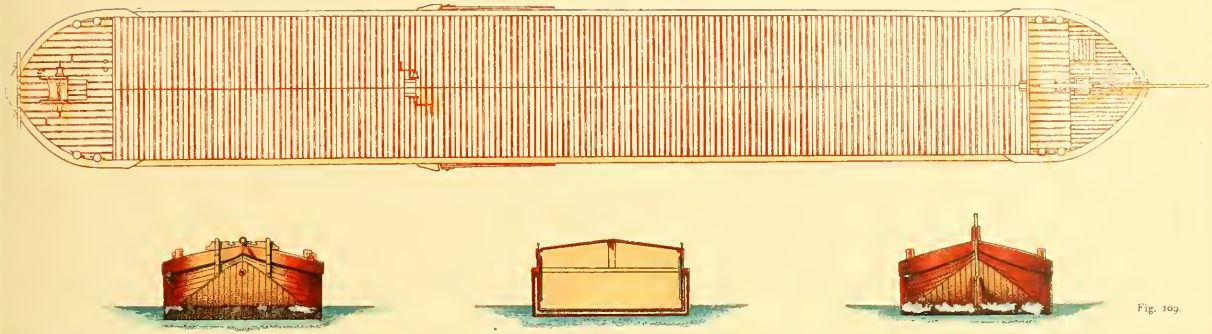
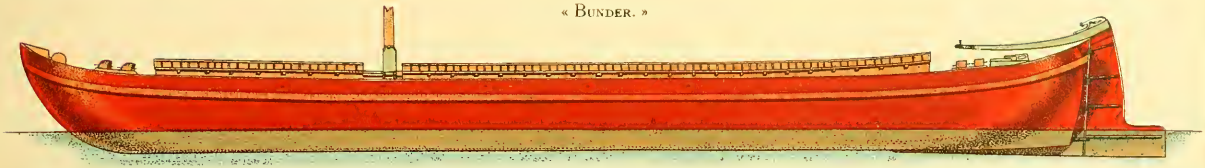


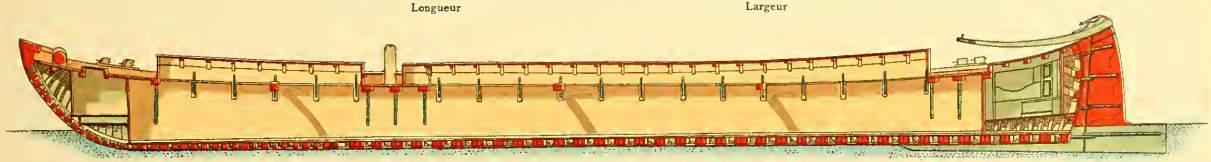
Fig. 109.

« Bunder. »



Lengte
Länge 34 M. Length
Longueur

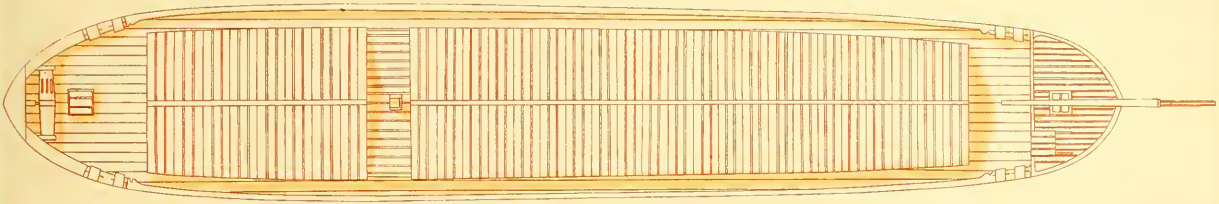
Breedte
Breite 6 M. Breadth
Largeur



Diepgang leegvlot
Tiefgang bei leerem Schiff 0.70 M. Draught when light
Tirant d'eau à vide

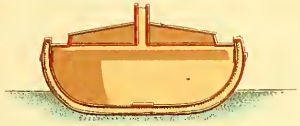
Fig. 110.

« Bunder. »



Lengte
Länge 34 M. Length
Longueur

Breedte
Breite 6·M. Breadth
Largeur



Diepgang leegvlot
Tiefgang bei leerem Schiff 0.70 M. Draught when light
Tirant d'eau à vide

Fig. 110.

« Herna. »

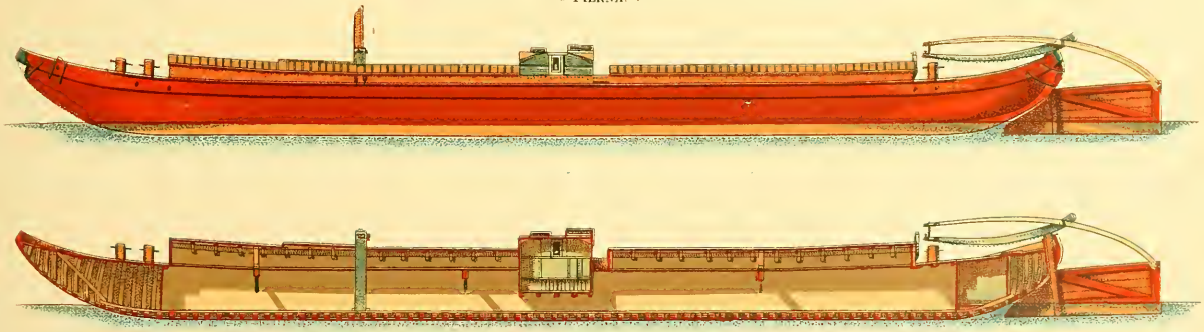
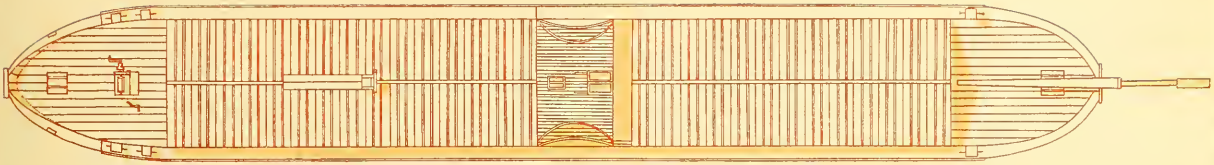


Fig. 111.

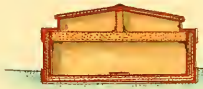
« Herna. »



Lengte
Länge 35 M. Length
Longueur

Breedte
Breite 5 M. Breadth
Largeur

Diepgang leegvlot
Tiefgang bei leerem Schiff 0.40 M. Draught when light
Tirant d'eau à vide



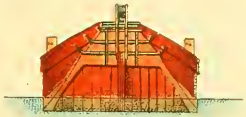
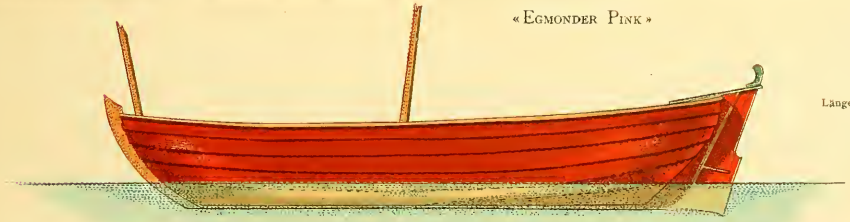


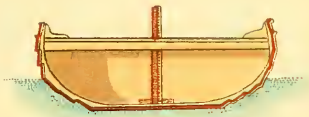
Fig. 111.

« Egmonder Pink »



Lengte
Länge 9.80 M. Length
Longueur

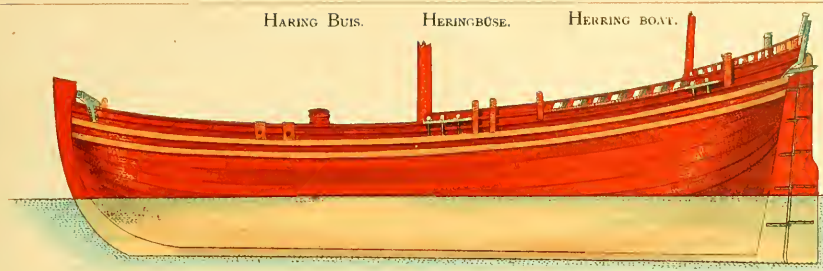
Breedte
Breite 3.36 M. Breadth
Largeur

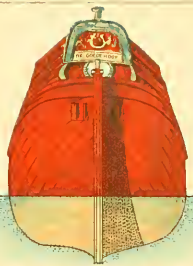


Diepgang leegvlot
Tiefgang bei leerem Schiff 0.50 M. Draught when light
Tirant d'eau à vide

Fig 112.

HARING BUIS. HERINGBÜSE. HERRING BOAT.

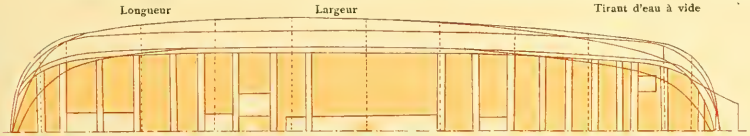




Lengte Breedte Diepgang leegvlot

Länge 14.56 M. Length Breite 4.04 M. Breadth Tiefgang bei leerem Schiff 1.12 M. Draught when light

Longueur Largeur Tirant d'eau à vide



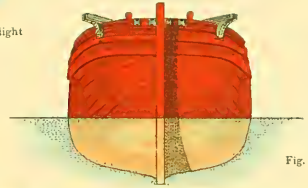
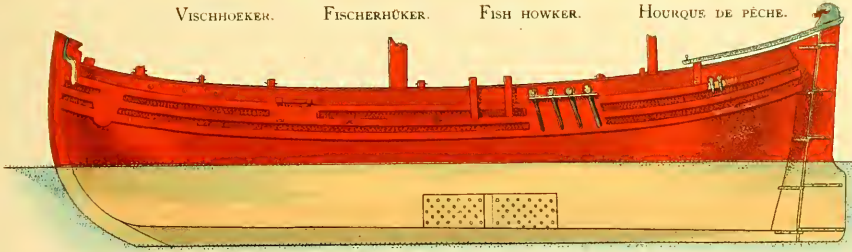
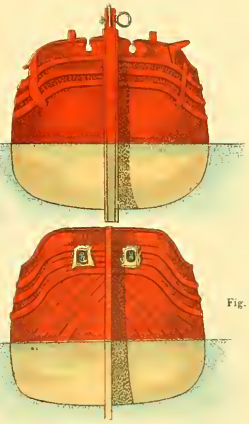


Fig. 113.

VISCHHOEKER. FISCHERHÜKER. FISH HOWKER. HOURQUE DE PÊCHE.





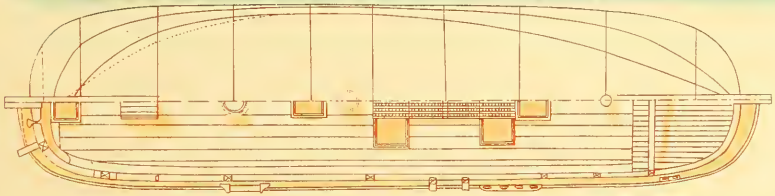
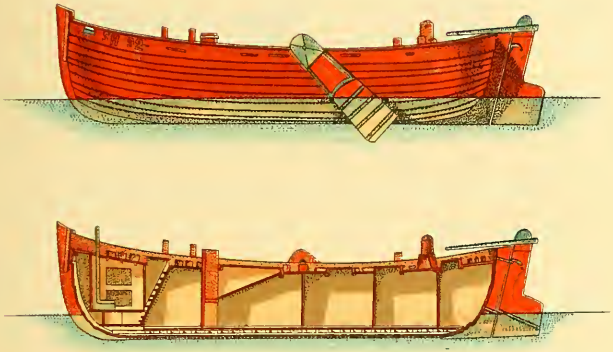
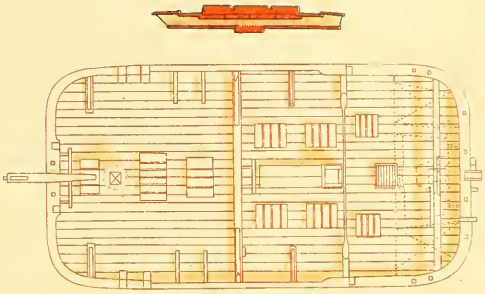


Fig. 114.

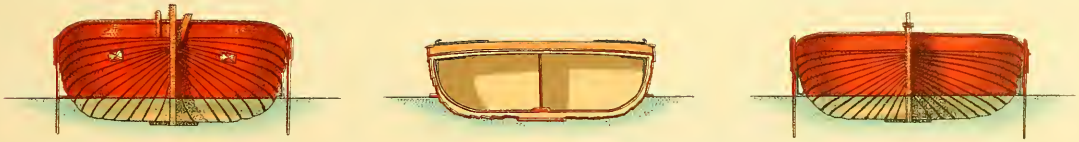
« Bom. »





Lengte
Länge 12 M. Length
Longueur

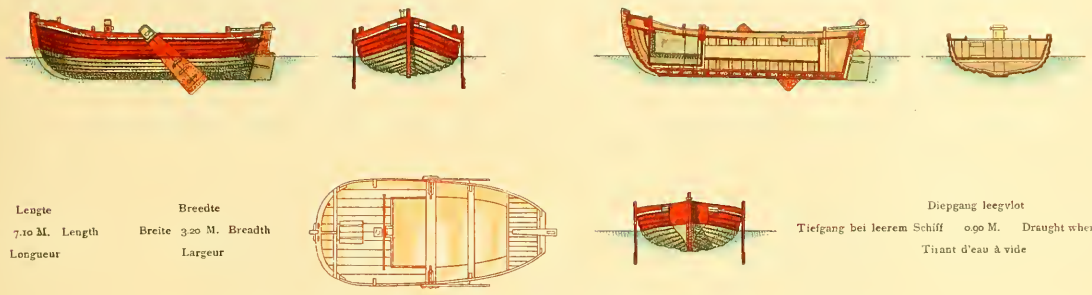
Breedte
Breite 6 M. Breadth
Largeur



Diepgang leegvlot
Tiefgang bei leerem Schiff 0.80 M. Draught when light
Tirant d'eau à vide

Fig. 115.

GARNALEN SCHUITJE. KRABBENFISCHEREIBARKE. SHRIMPER. BARQUE DE PÊCHE AUX CREVETTES.



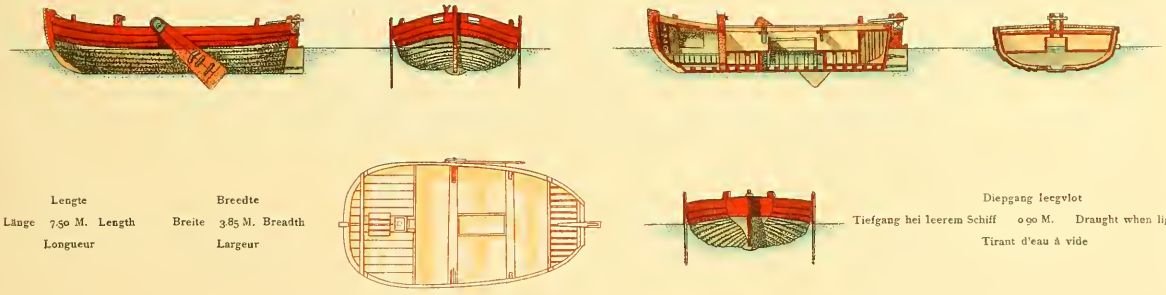
Lengte
Länge 7.10 M. Length
Longueur

Breedte
Breite 3.20 M. Breadth
Largeur

Diepgang leegvlot
Tiefgang bei leerem Schiff 0.90 M. Draught when light
Tirant d'eau à vide

Fig. 116.

GARNALEN SCHUITJE MET BUN. KRABBENFISCHEREIBARKE MIT FISCHKASTEN. SHRIMPER WITH WATER WELL. BARQUE DE PÊCHE AUX CREVETTES AVEC BANNETON.

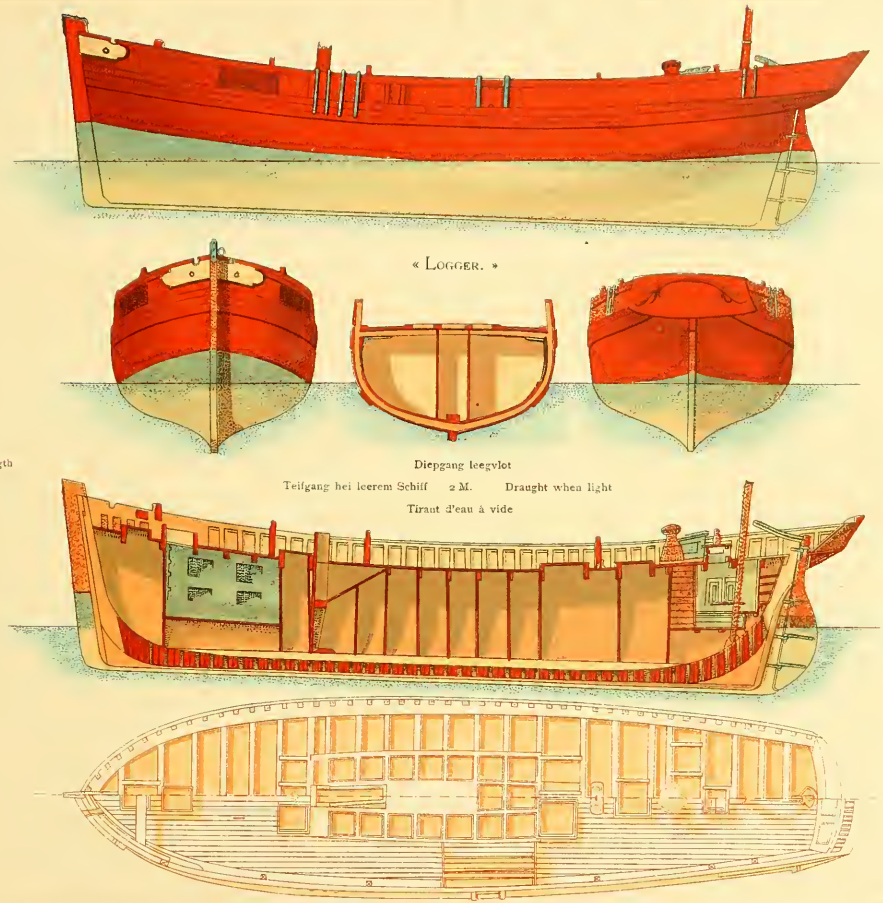


Lengte
Länge 7.50 M. Length
Longueur

Breedte
Breite 3.85 M. Breadth
Largeur

Diepgang leegvlot
Tiefgang bei leerem Schiff 0.90 M. Draught when light
Tirant d'eau à vide

Fig. 117.



« Logger. »

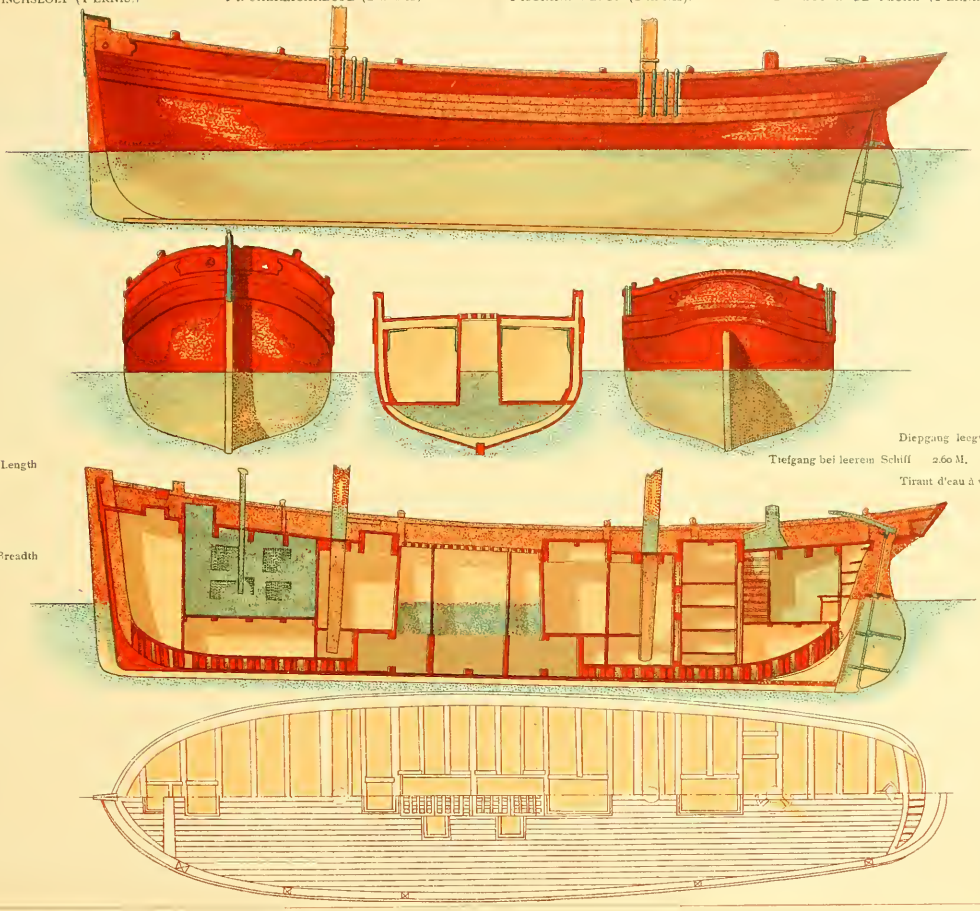
Lengte
Lange 21.75 M. Length
Longueur

Diepgang leegvlot
Teifgang bei leerem Schiff 2 M. Draught when light
Tirant d'eau à vide

Breedte
Breite 6 M. Breadth
Largeur

Fig. 118.

Vischsloep (Pernis). Fischereichalupe (Pernis). Fisching sloop (Pernis). Chaloupe de pêche (Pernis).



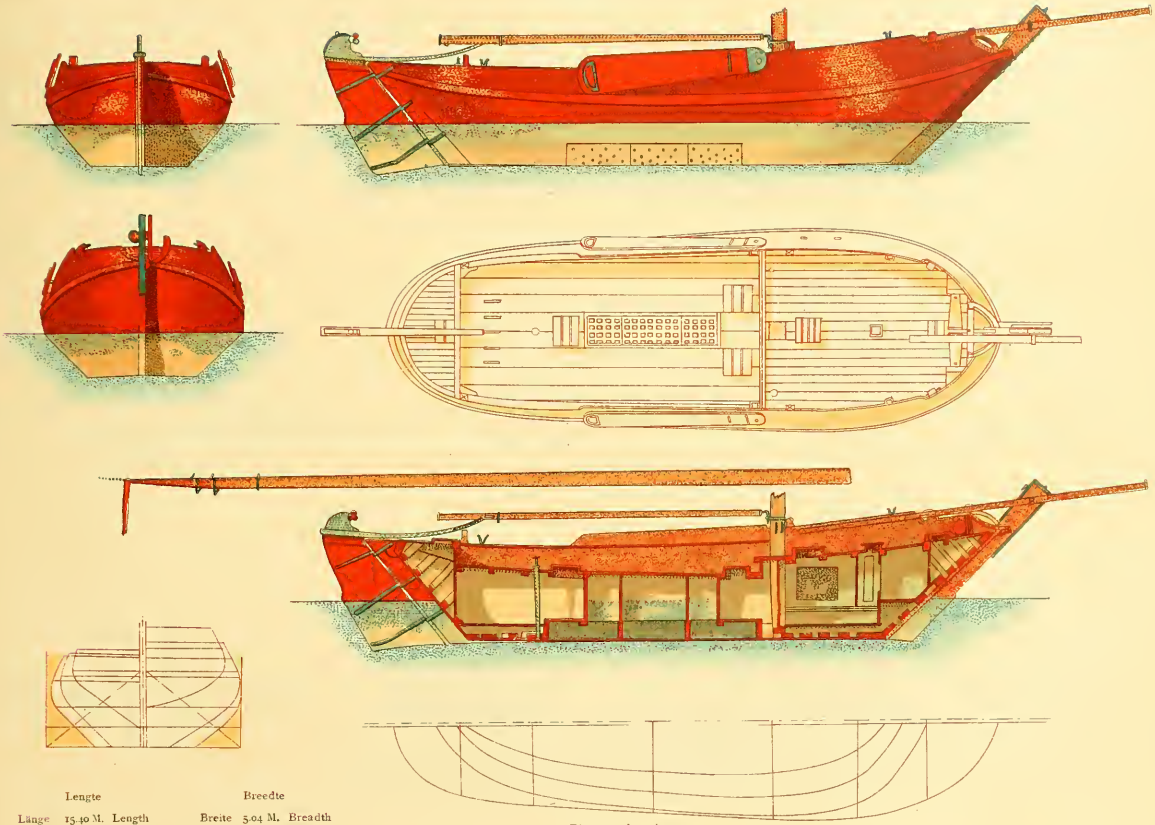
Lengte
Länge 22.60 M. Length
Longueur

Breedte
Breite 5.95 M. Breadth
Largeur

Diepgang leegvlot
Tiefgang bei leerem Schiff 2.60 M. Draught when light
Tirant d'eau à vide

Fig. 119.

« Schokker. »



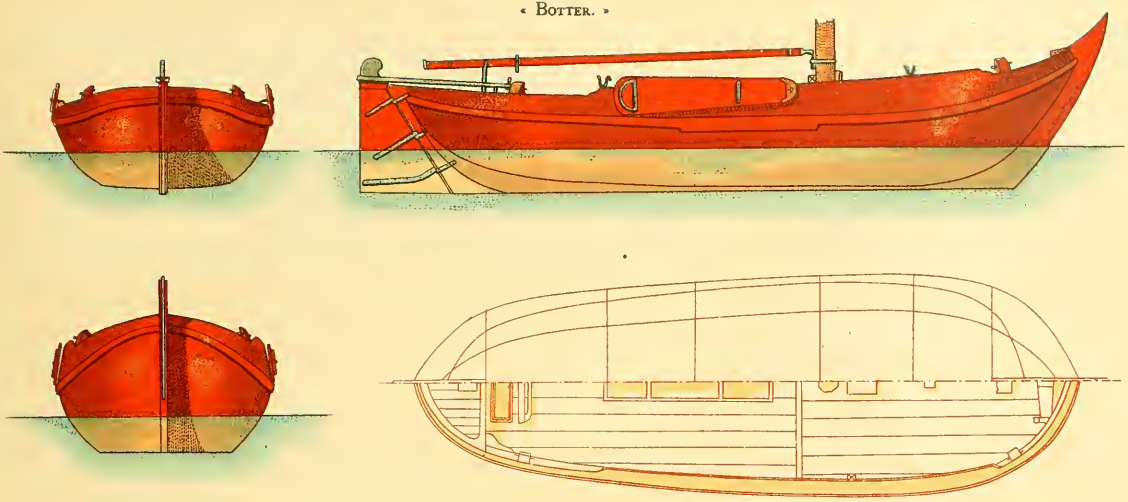
Lengte
Länge 15.40 M. Length
Longueur

Breedte
Breite 5.04 M. Breadth
Largeur

Diepgang leegvlot
Tiefgang bei leerem Schiff 0.98 M. Draught when light
Tirant d'eau à vide

Fig. 120.

« Botter. »



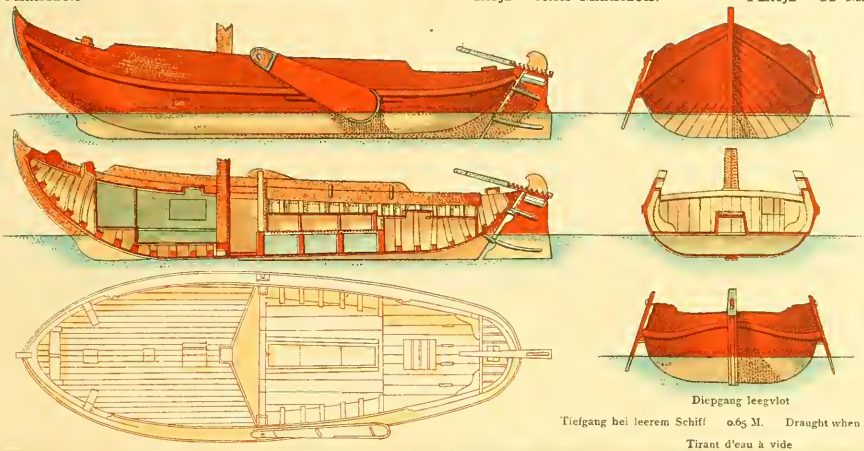
Lengte
Länge 15.40 M. Length
Longueur

Breedte
Breite 5. M. Breadth
Largeur

Diepgang leegvlot
Tiefgang bei leerem Schiff 1 M. Draught when light
Tirant d'eau à vide

Fig. 121.

PLATJE VAN MAASSLUIS. PLATTSCHIFF VON MAASSLUIS. « PLATJE » FROM MAASSLUIS. « PLATJE » DE MAASSLUIS.



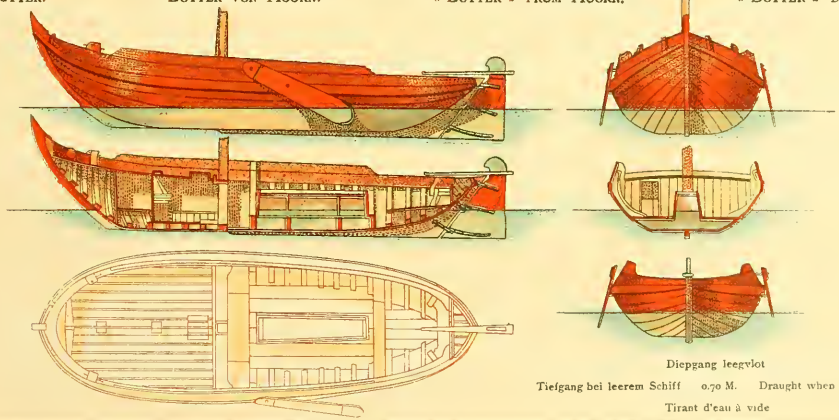
Lengte
Länge 19.62 M. Length
Longueur

Breedte
Breite 4.50 M. Breadth
Largeur

Diepgang leegvlot
Tiefgang bei leerem Schiff 0.65 M. Draught when light
Tirant d'eau à vide

Fig. 122.

HOORNSCHE BOTTER. BOTTER VON HOORN. « BOTTER » FROM HOORN. « BOTTER » DE HOORN.



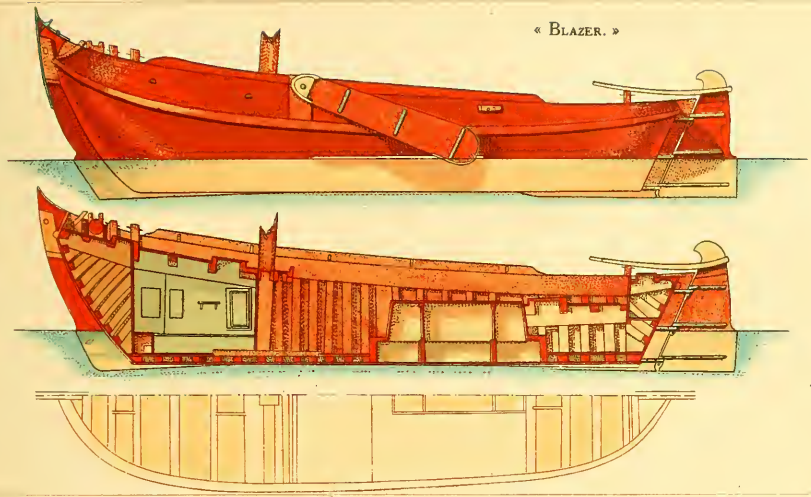
Lengte
Länge 11 M. Length
Longueur

Breedte
Breite 3.80 M. Breadth
Largeur

Diepgang leegvlot
Tiefgang bei leerem Schiff 0.70 M. Draught when light
Tirant d'eau à vide

Fig. 123.

« Blazer. »

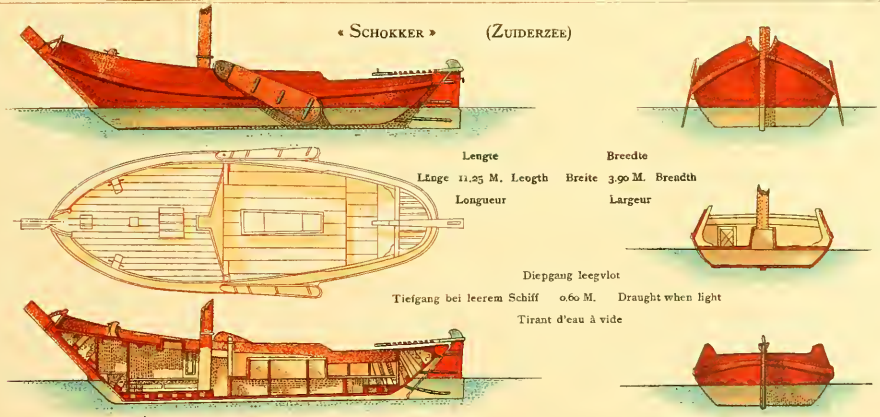


Lengte Breedte
Länge 14.42 M. Length Breite 5.22 M. Breadth
Longueur Largeur

Diepgang leegvlot
Tiefgang bei leerem Schiff 1.05 M. Draught when light
Tirant d'eau à vide

Fig. 124.

« Schokker » (Zuiderzee)

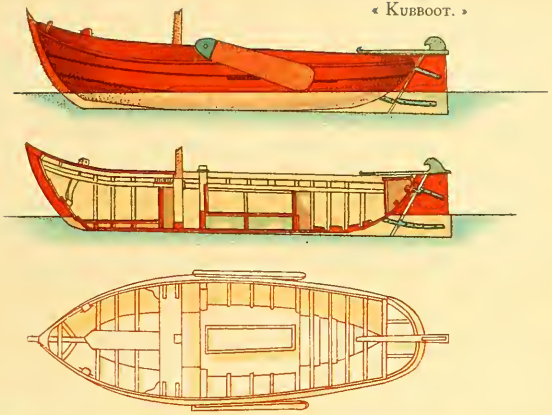


Lengte Breedte
Länge 11.25 M. Length Breite 3.90 M. Breadth
Longueur Largeur

Diepgang leegvlot
Tiefgang bei leerem Schiff 0.60 M. Draught when light
Tirant d'eau à vide

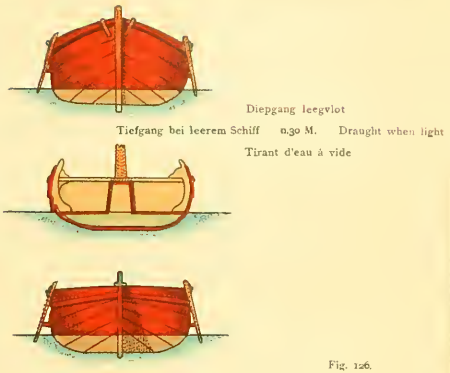
Fig. 125.

« Kubboot. »



Lengte
Länge 5.55 M. Length
Longueur

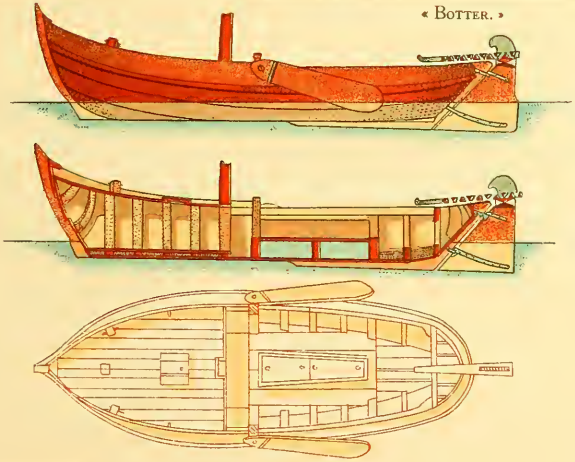
Breedte
Breite 1.80 M. Breadth
Largeur



Diepgang leegvlot
Tiefgang bei leerem Schiff 0.30 M. Draught when light
Tirant d'eau à vide

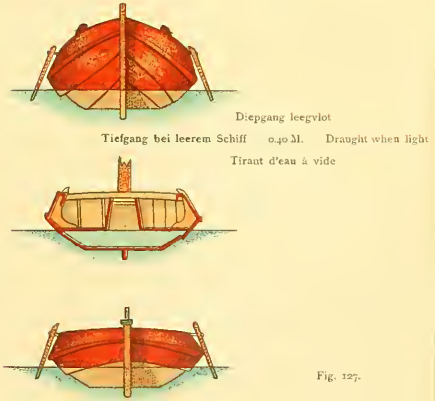
Fig. 126.

« Botter. »



Lengte
Länge 6.12 M. Length
Longueur

Breedte
Breite 2.20 M. Breadth
Largeur



Diepgang leegvlot
Tiefgang bei leerem Schiff 0.40 M. Draught when light
Tirant d'eau à vide

Fig. 127.

« Lemmerjacht. »

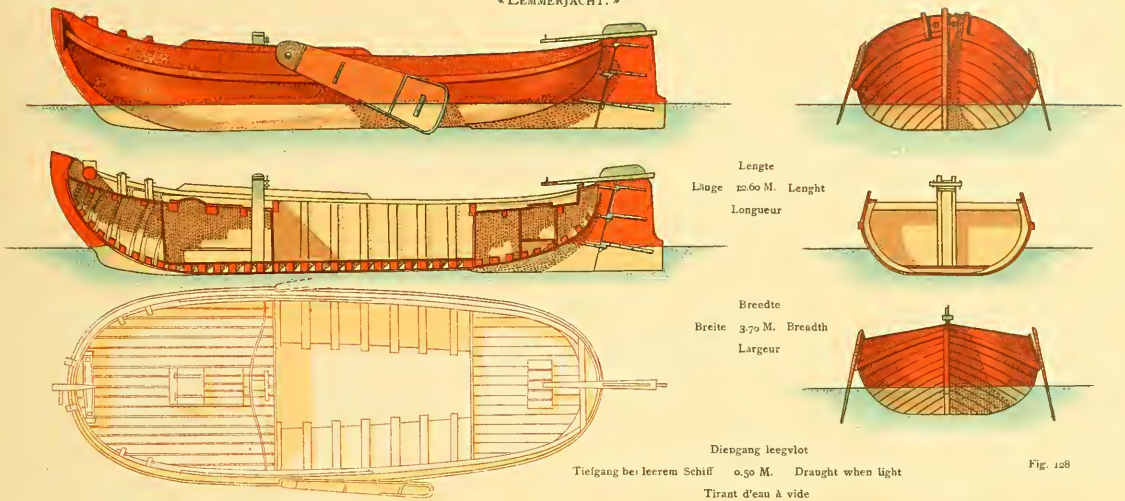


Fig. 128

« Bolle » (Bolletje)

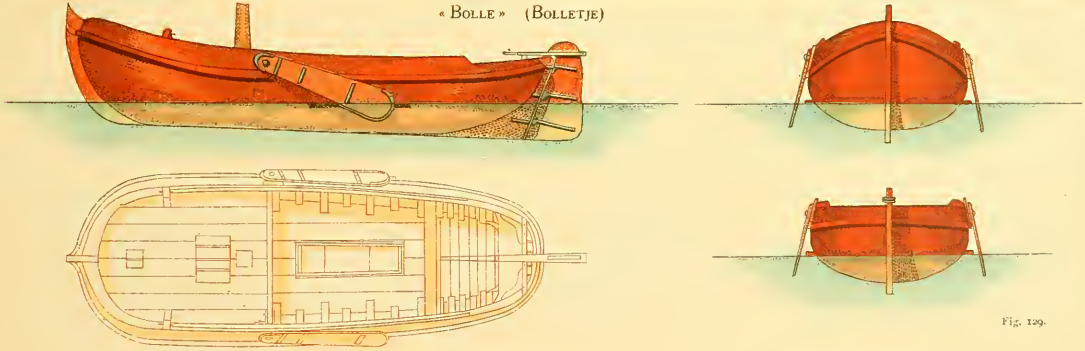
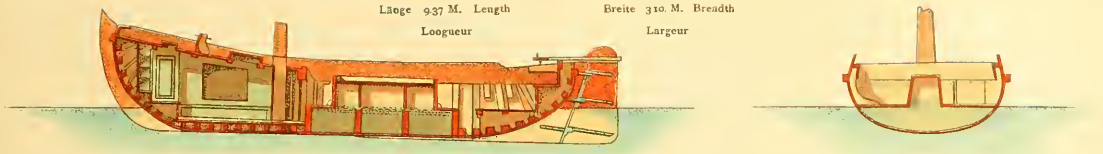


Fig. 129.



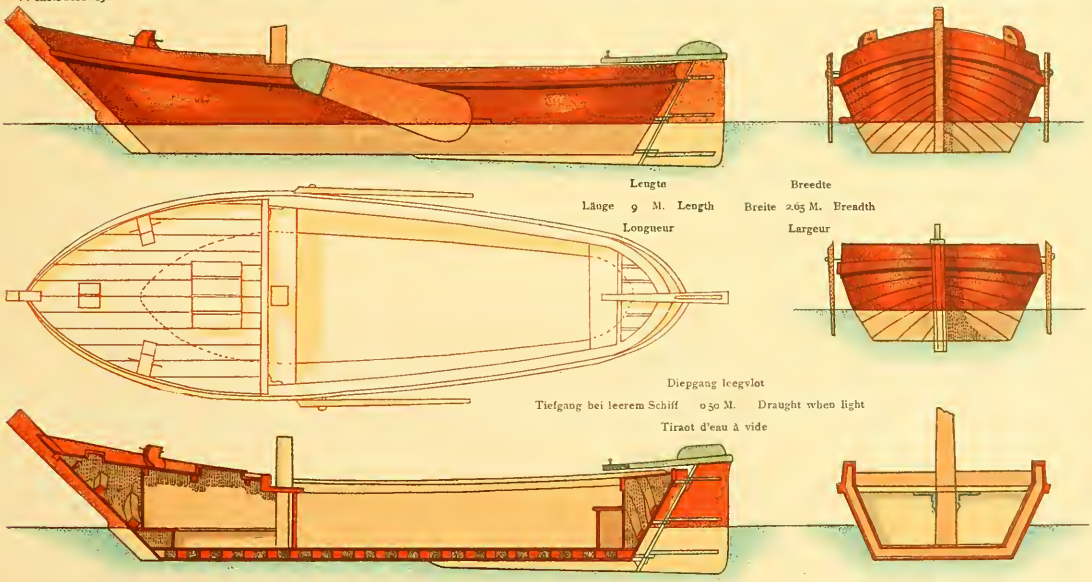
Lengte
Länge 9.37 M. Length
Longueur

Breedte
Breite 3.10 M. Breadth
Largeur

Diepgang leegvlot
Tiefgang bei leerem Schiff 0.65 M. Draught when light
Tirant d'eau à vide

Fig. 129.

Wierschuitje van Wieringen. Wierschute von Wieringen. « Wierschuitje » from Wieringen. « Wierschuitje » de Wieringen.



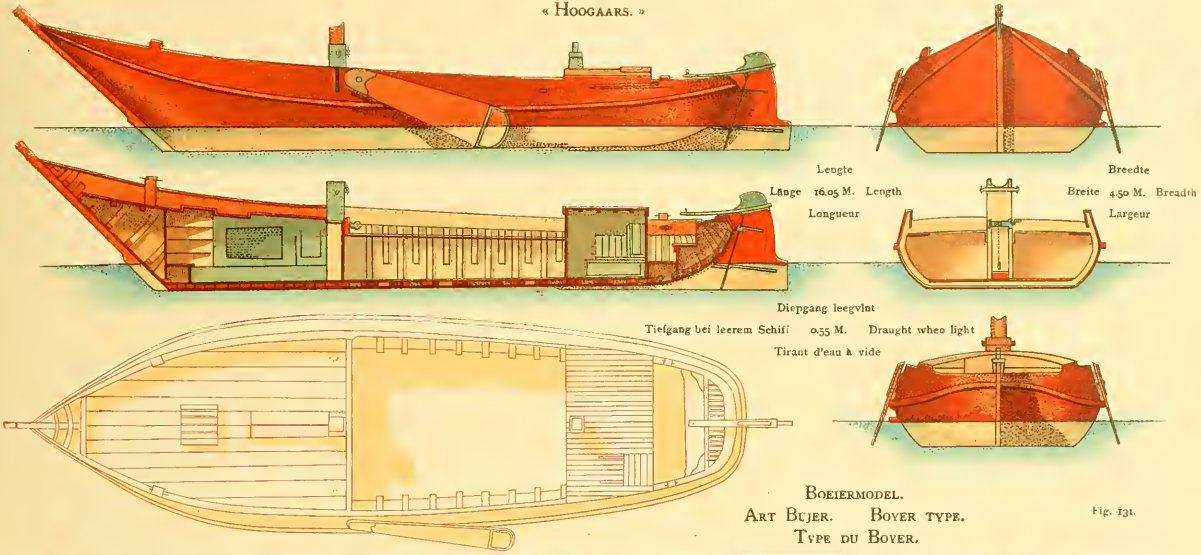
Lengte
Länge 9 M. Length
Longueur

Breedte
Breite 2.05 M. Breadth
Largeur

Diepgang leegvlot
Tiefgang bei leerem Schiff 0.50 M. Draught when light
Tiraot d'eau à vide

Fig. 130.

« Hoogaars. »



Boeiermodel.
Art Bujer. Bover type.
Type du Bover.

Fig. 131.

« Hoogaars. »

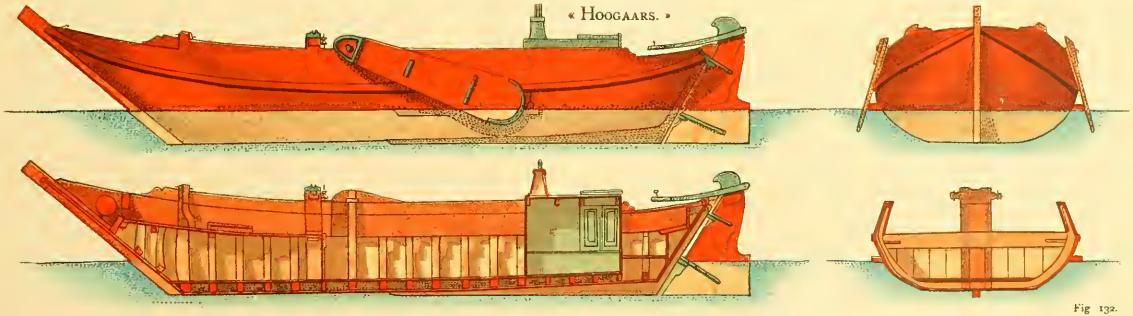


Fig. 132.

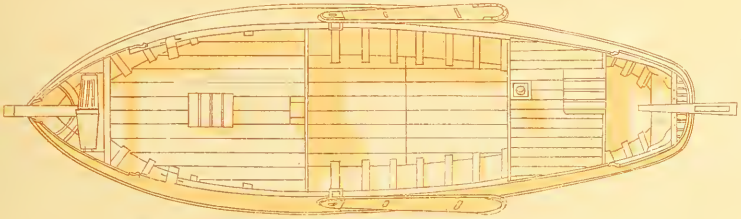
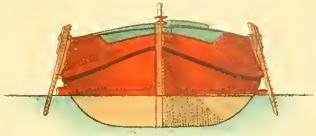


Fig 132.



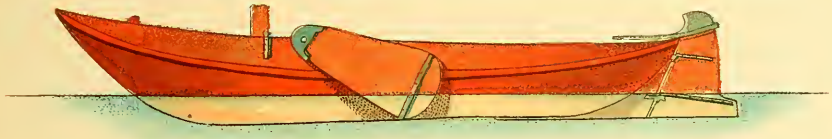
Lengte — Breedte — Diepgang leegvlot

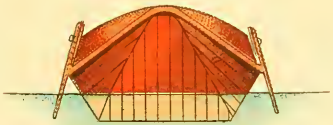
Länge 15. M. Length — Breite 4. M. Breadth — Tiefgang bei leerem Schiff 0.50 M. Draught when light

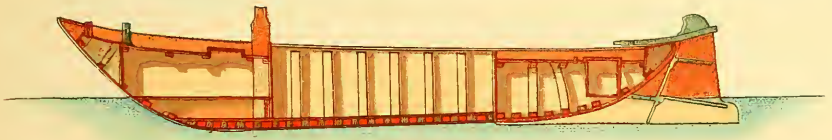
Longueur — Largeur — Tirant d'eau à vide

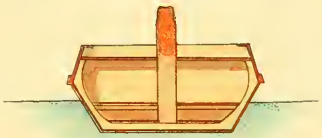
OUD MODEL.
ALTES MODELL. OLD MODEL.
ANCIEN MODÈLE.

THOLENSCHE SCHOUW. « SCHOUW » VON THOLEN. « SCHOUW » FROM THOLEN. « SCHOUW » DE THOLEN.





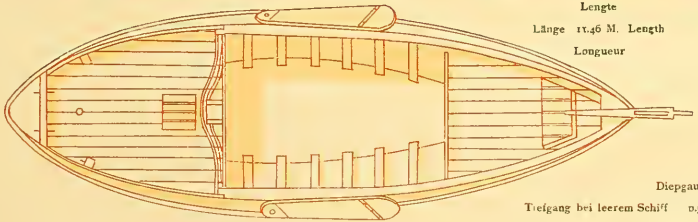


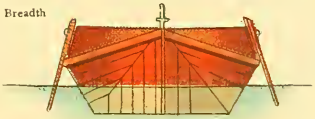


Lengte — Breedte

Länge 11.46 M. Length — Breite 3.30 M. Breadth

Longueur — Largeur





Diepgaug leegvlot

Tiefgang bei leerem Schiff 0.50 M. Draught when light

Tirant d'eau à vide

Fig. 133.

« Beierlandsche schuit. »

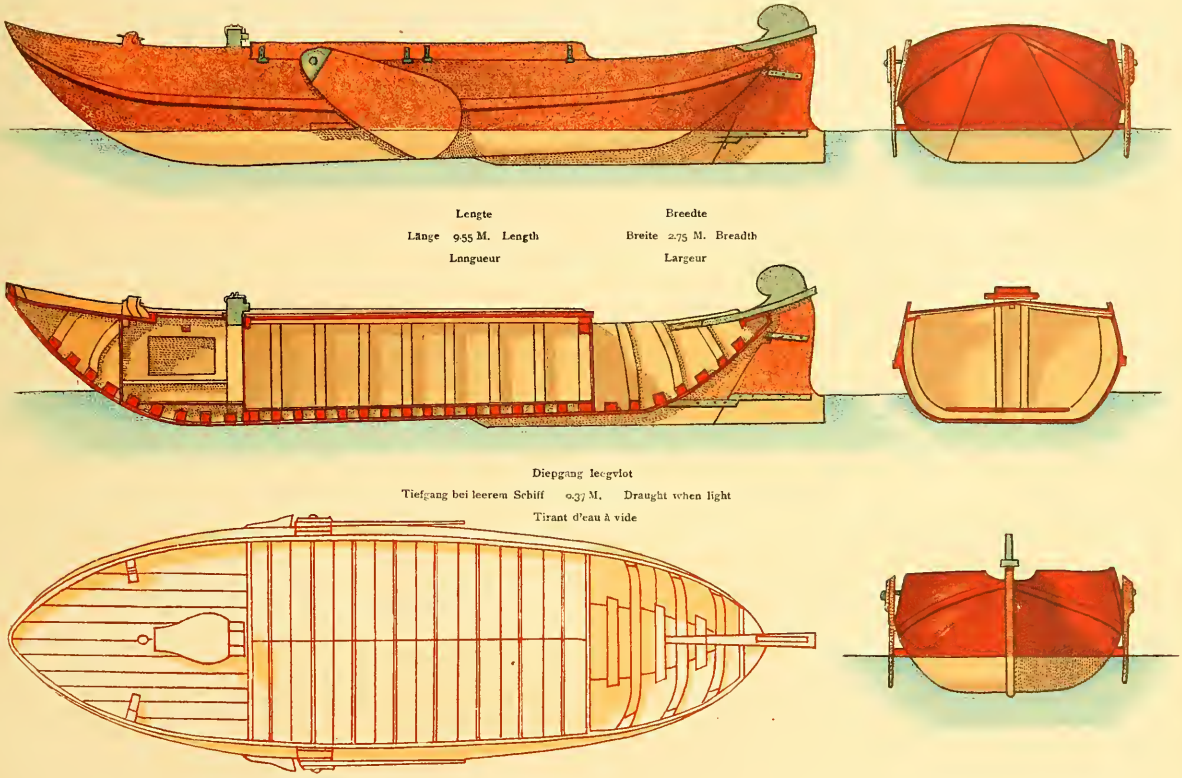
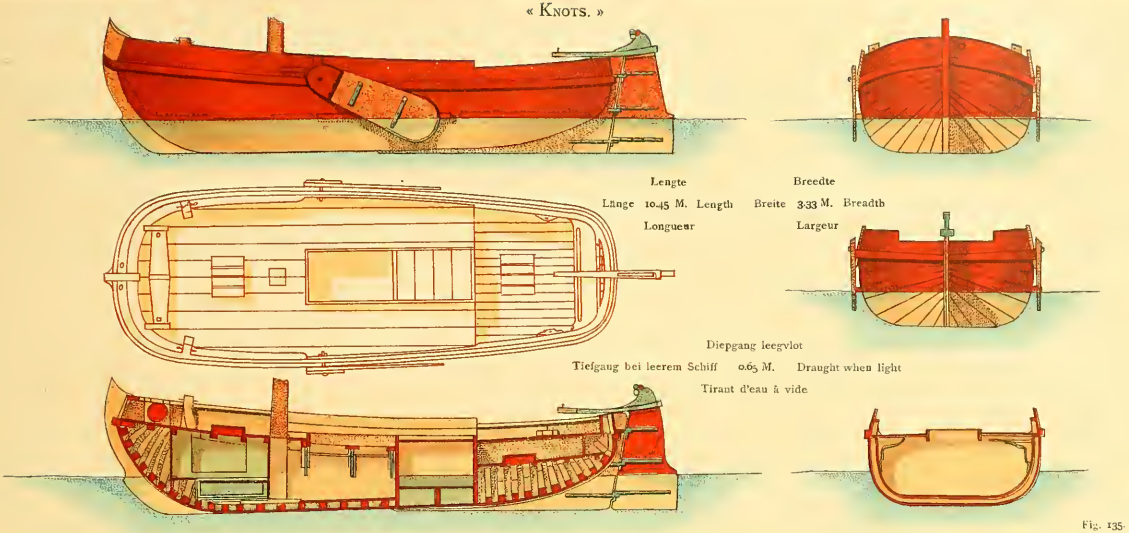


Fig. 134.

« Knots. »



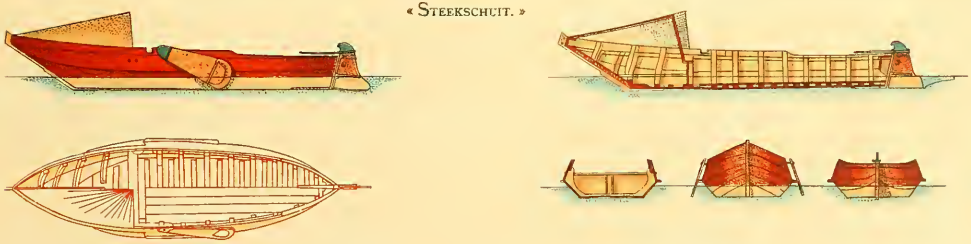
Lengte
Länge 10.45 M. Length
Longueur

Breedte
Breite 3.33 M. Breadth
Largeur

Diepgang leegvlot
Tiefgang bei leerem Schiff 0.65 M. Draught when light
Tirant d'eau à vide

Fig. 135.

« Steekschuit. »



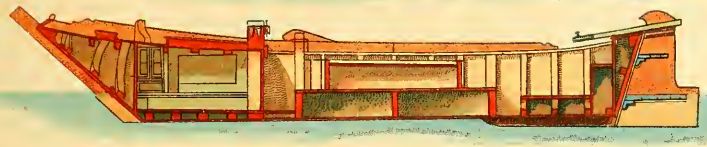
Lengte
Länge 8.10 M. Length
Longueur

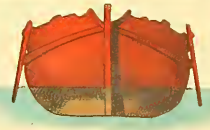
Breedte
Breite 2 M. Breadth
Largeur

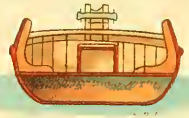
Diepgang leegvlot
Tiefgang bei leeren Schiff 0.35 M. Draught when light
Tirant d'eau à vide

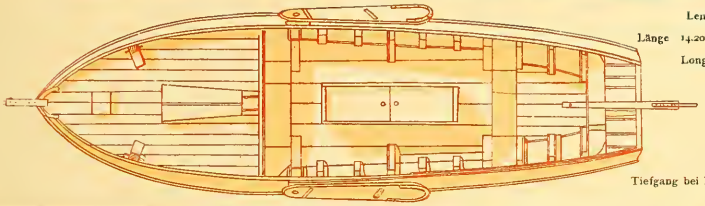
Fig. 136.

« Vischgondel. »



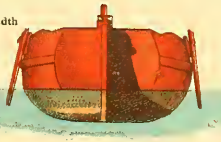






Lengte
Länge 14.20 M. Length
Longueur

Breedte
Breite 3.80 M. Breadth
Largeur



Diepgang leegvlot
Tiefgang bei leerem Schiff 0.60 M. Draught when light
Tirant d'eau à vide

Fig. 137.

Vischschuit (Alsmeer). Fischerbarke (Alsmeer). Fishing vessel (Alsmeer). Barque de pêche (Alsmeer)

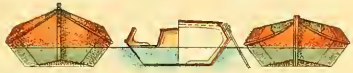
Lengte
Länge 9.70 M. Length
Longueur

Breedte
Breite 2.94 M. Breadth
Largeur

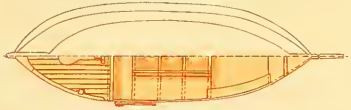
Diepgang leegvlot
Tiefgang bei leerem Schiff 0.60 M. Draught when light
Tirant d'eau à vide

Lengte
Länge 11.50 M. Length
Longueur

Breedte
Breite 3.60 M. Breadth
Largeur



Diepgang leegvlot
Tiefgang bei leerem Schiff 0.65 M. Draught when light
Tirant d'eau à vide



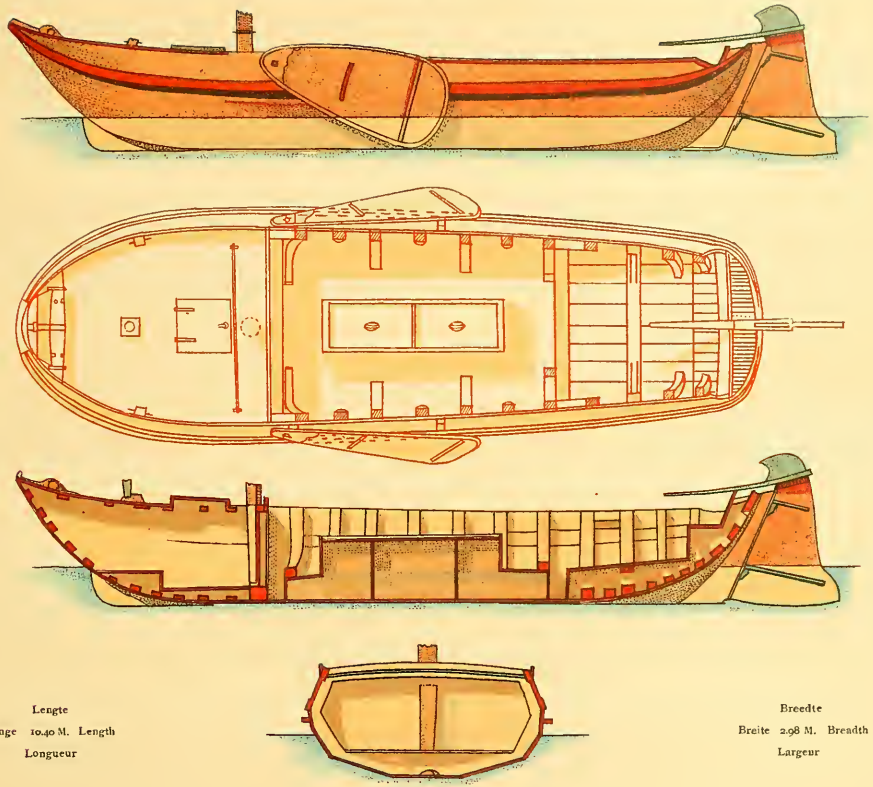
Lengte
Länge 11.50 M. Length
Longueur

Breedte
Breite 2.91 M. Breath
Largeur

Diepgang leegvlot
Tiefgang bei leerem Schiff 0.65 M. Draught when light
Tirant d'eau à vide

Fig. 138.

« Boeieraak. »

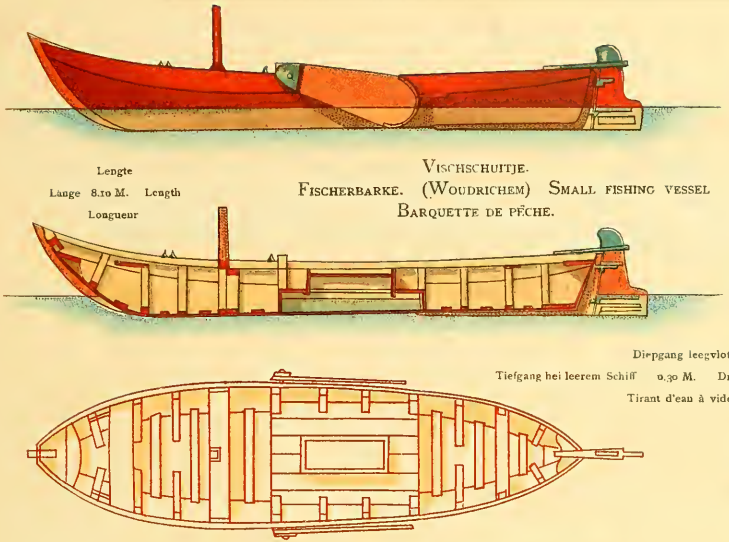


Lengte
Länge 10.40 M. Length
Longueur

Breedte
Breite 2.98 M. Breadth
Largeur

Diepgang leegvlot
Tiefgang bei leerem Schiff 0.50 M. Draught when light
Tirant d'eau à vide

Fig. 139.



Lengte
Länge 8.10 M. Length
Longueur

Breedte
Breite 1.90 M. Breadth
Largeur

Diepgang leegvlot
Tiefgang bei leerem Schiff 0.30 M. Draught when light
Tirant d'eau à vide

VISCHSCHUITJE.
FISCHERBARKE. (WOUDRICHEM) SMALL FISHING VESSEL
BARQUETTE DE PÊCHE.

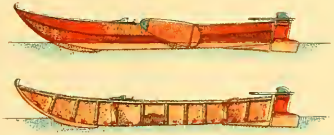
Fig. 140.

« PUNTER. »

Schaal
Massstab 1 à 100 Scale
Echelle

Fig. 141.

« PRIKSCHUIT. »



Lengte
Länge 7.80 M. Length
Longueur

Breedte
Breite 2.02 M. Breadth
Largeur

Diepgang leegvlot
Tiefgang bei leerem Schiff 0.30 M. Draught when light
Tirant d'eau à vide

Fig. 142.

« PUNTER. »

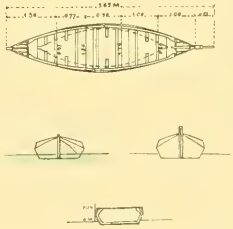
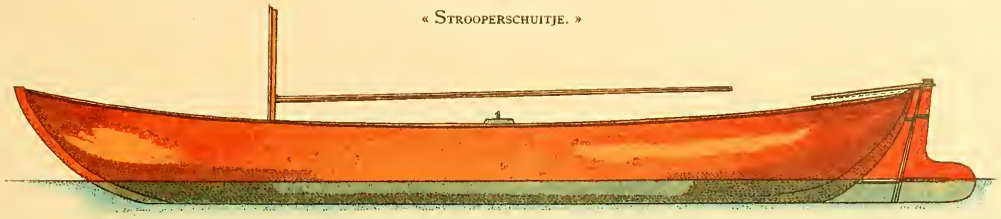


Fig. 141.

« Strooperschuitje. »



Schaal
Massstab 1 à 20 Scale
Echelle

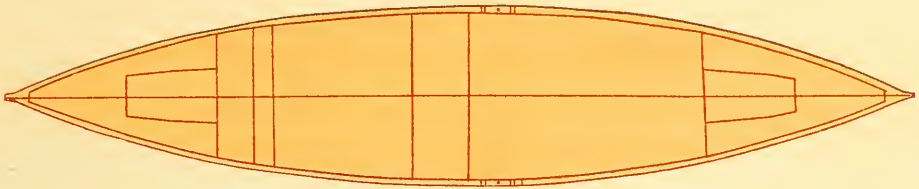


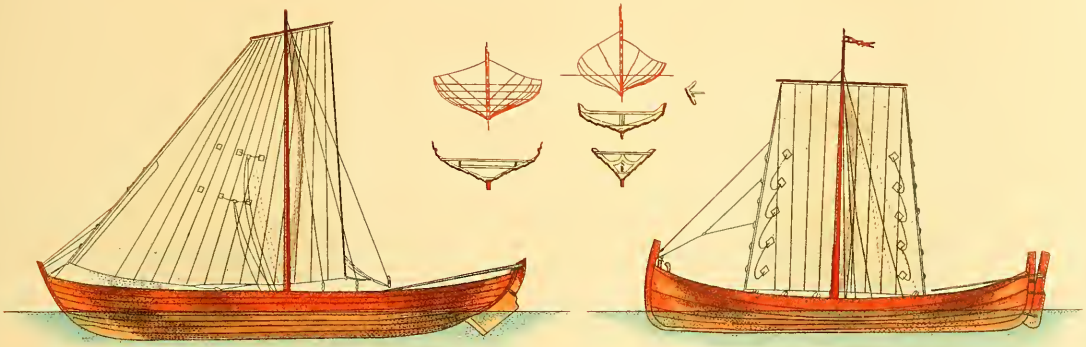
Fig. 143.

« Vlieger. »

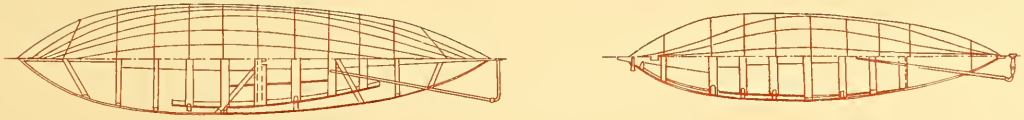
Schaal
Massstab 1 à 100 Scale
Echelle

Fig. 144.

Tuigen. Takelung. Rig. Gréements.



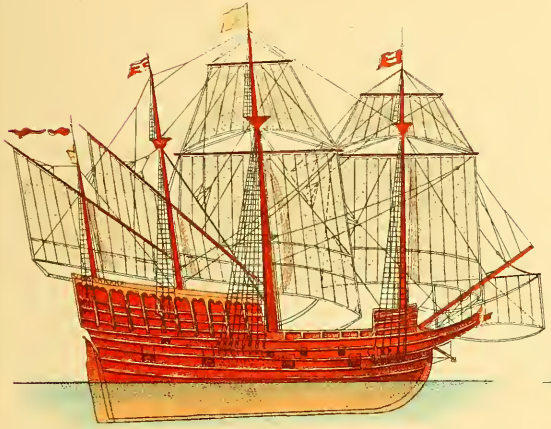
Visschersvaartuigen. Fischereifahrzüge Fishing vessels. Bateaux de pêche.



Noorwegen. Norwegen. Norwav. Norvège.

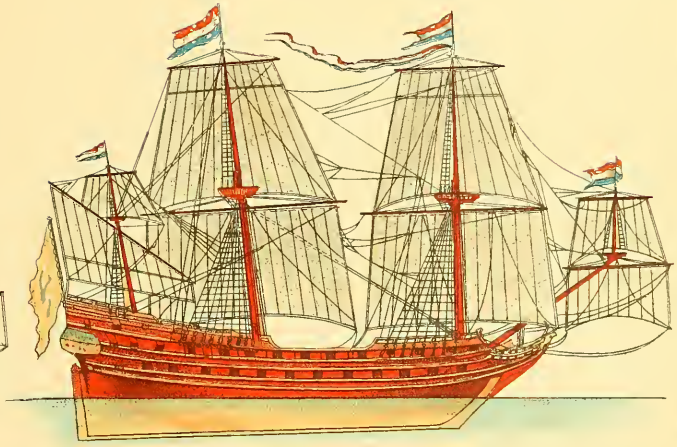
Fig. 145.

16e EEUW.
16. JAHRHUNDERT. 16TH CENTURY
16e SIÈCLE.



1450

17e EEUW.
17. JAHRHUNDERT. 17TH CENTURY.
17e SIÈCLE.



1650

NEDERLAND. NIEDERLANDE. NETHERLANDS. PAYS-BAS.

Schaal
Massstab 1 à 400 Scale
Echelle

Fig. 146.

Begin der 19e eeuw.
Anfang des 19. Jahrhunderts. Beginning of the 19th century.
Début du 19e siècle.

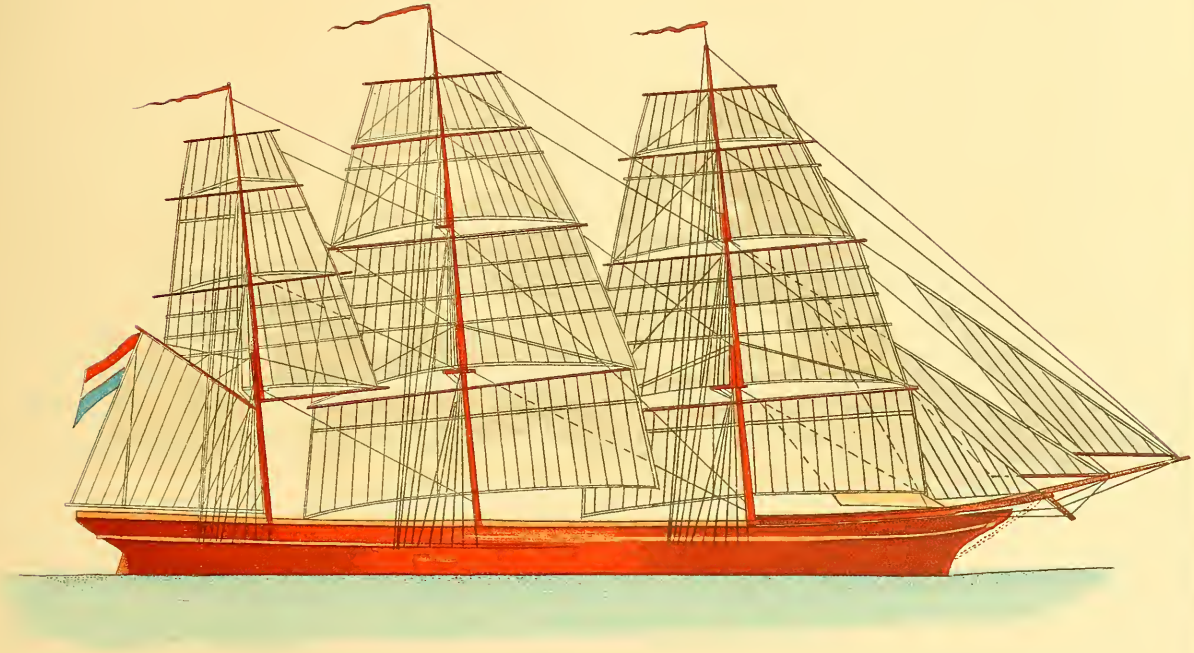
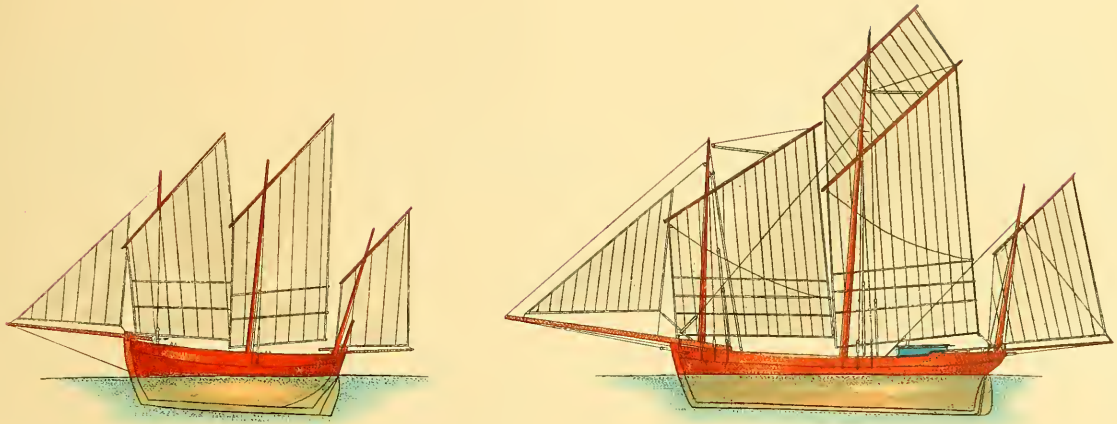


Fig. 147.

Logger. Lugger. Lougre.

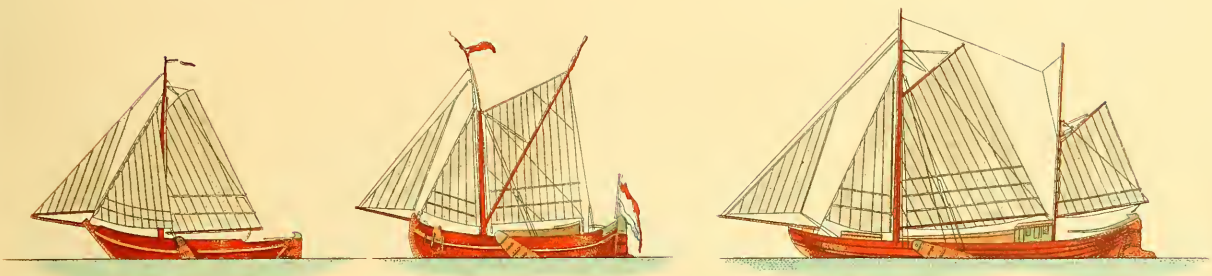


Schaal
Massstab 1 à 400 Scale
Echelle

Frankrijk. Frankreich. France.

Fig. 148.

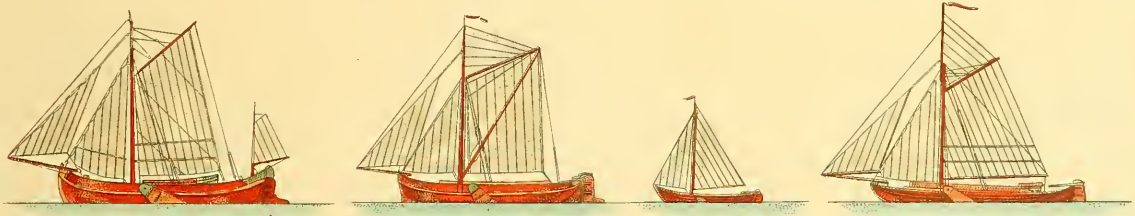
Nederland. Niederlande. Netherlands. Pays-Bas.



Bezaantuig.
Besantakelung. Besan rig.
Gréement d'artimon.

Sprietтuig (oud model).
Spriettakelung (alte Art). Sprit rig (old form).
Gréement a livarde (type ancien).

Anderhalfmast bezaantuig.
Besantakelung mit $1\frac{1}{2}$ mast. Besan rig with $1\frac{1}{2}$ mast.
Gréement d'Artimon a $1\frac{1}{2}$ mat.



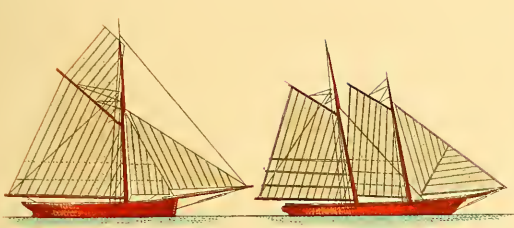
Gaffeltuig.
Gaffeltakelung. Fore and aft rig.
Gréement en aurique.

Sprietтuig (nieuw model).
Spriettakelung (neue Art). Sprit rig (new form).
Gréement a livarde (type nouveau).

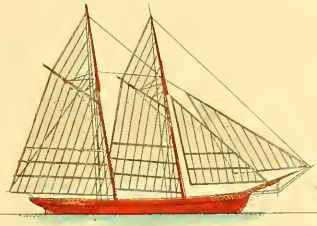
Kubboottuig.
Kubboottakelung. Kubboot rig.
Gréement a Kubboot.

Bezaantuig met beweegbare steng.
Besantakelung mit beweglicher Stenge.
Gréement d'artimon a mat de hune mobile.

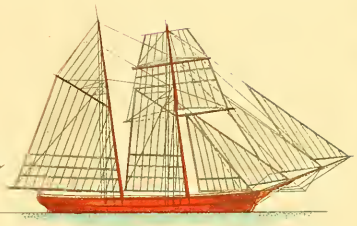
Fig. 149.



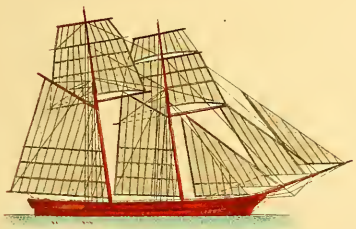
Kottertuig.
Kutterfakelung. Cutter rig.
Gréement en cotre.



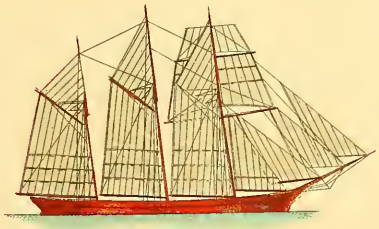
Schoenertuig.
Schonertakelung. Schooner rig.
Gréement en goélette.



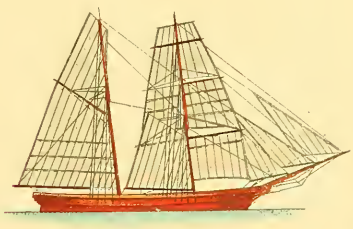
Topzeilschoener.
Topseilschoner. Topsail schooner.
Goélette carrée.



Brigantein.
Brigantine. Brigantine.
Brigantine.



Driemastschoener.
Dreimastschoner. Three-masted schooner.
Goélette a trois mats.



Schoenerbrik.
Schonerbrick. Hermaphrodite brig.
Schoenerbrik.

Fig. 150.

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v. 3 Shipbuilding from its beginnings,